NATIONAL PETROLEUM NEWS

Vol. XVIII | Cleveland, Ohio, April 21, 1926 | No. 16

Insurance Companies Cancel Policies On California Storage Oil

LOS ANGELES, April 19

WHOLESALE cancellations of fire insurance on petroleum in storage all over California has resulted during the last ten days because fire insurance companies face the painful ordeal of forking over between $6,000,000 and $9,000,000 to cover loses suffered when tank farms belonging to the Union Oil Co. of California were recently destroyed at Brea and San Luis Obispo in fires resulting from lightning.

Just now no one can determine how much insurance has been cancelled. The fire insurance companies can't foot it all up, because it is so widely scattered, and the oil companies are in no mood to compile such information. It is believed, however, that fire insurance has been cancelled on between 25,000,000 and 50,000,000 barrels of oil, mostly in southern California.

The Shell Co. of California admits the cancellation of insurance on 6,500,000 barrels at Watson Junction, and the General Petroleum Corp. admits cancellation on 500,000 barrels at the same place, while it is understood that the Union Oil Co. of California has suffered cancellation on one underground reservoir at Santa Fe springs, two at Brea and five at Watson Junction, said to total 6,000,000 barrels of storage.

Pan American Petroleum Co. has somewhere between 4,000,000 and 6,000,000 barrels of underground storage at Watson Junction, and it is believed that insurance on this has been cancelled. No official statement can be obtained.

It resolves itself into a case of the fire insurance companies getting out from under before another big disaster overtakes them. Last fall the Pacific Oil Co. lost a couple of big reservoirs full of oil in the Kern river country, as a result of lightning, in January and the Standard Oil Co. of California had a tank of distillate at El Segundo fired by a spark, and more recently the Union lost approximately 8,600,000 barrels of oil in its two fires at widely separated points.

The oil companies appear to be of the opinion that the insurance companies are cancelling in the expectation that they can compel owners of stored oil to come and coax them to write new policies, in which case it might be possible to spring the rates considerable, but the insurance companies—some of them, at least—look at it from an entirely different slant.

According to statements made by their local agents, some of the fire insurance companies are not going to write any more insurance on crude oil in underground reservoirs, no matter what the rate might be, and some are not going to take insurance on steel tank storage in cases where the tanks are too close together, or where they are unduly exposed to fire hazards.

Other companies are understood to take a little broader attitude in the matter, but are decidedly inclined to keep well within the limitations of safety. The percentage of protection they will write upon the oil's market value is likely to be sharply reduced on future business, it is asserted.

The situation resolves itself into one where the insurance companies have availed themselves of their privilege to cancel out long enough to make a new study of the oil storage problem, while the safety engineers of the various major producing companies are making a painstaking study of their respective hazards and holding conferences in an effort to decide what they are going to do to reduce fire hazards. Meanwhile, upwards of 25,000,000 barrels, and perhaps twice that amount of oil, stands in the California reservoirs, without a cent's worth of insurance on it, it is asserted.

The Hartford Fire Insurance Co. is said to have been one of the largest participants in the oil insurance carried by the Union. Some of Union's reservoirs were not insured at all, reports say, while others were well covered. It is asserted in fire insurance circles that the Union was protected to the extent of 90 per cent of market value on some of its oil that went up in the fire.

Some of the fire insurance companies writing on storage in this state are the Royal Insurance Co. of London, Firemen's Fund of California, Home Fire & Marine Co., Insurance Co. of North America, the Alliance, the LaSalle, the Yorkshire, Hartford and others. No one company has been carrying an excessive amount, it is said, the plan having been to spread it out among insurance groups, through what is known as the reinsuring treaty.

Fire insurance officials are now working with the Union in an effort to ascertain the full extent of its loss. It is reported that the Union carried close to $15,000,000 worth of fire insurance on all its oil in storage, which is said to have totaled about 24,000,000 barrels, before its recent disaster.

Why Weigh an Oil Well?

The practice is growing of ascertaining the dead weight of an oil well, rods, fluid, etc., to make for better balance on a power and to enable the selection of the right kind of belt.

Oil companies that have used the method consider they have been repaid many times. Money is saved by prescribing the right kind of belt. Time lost from breakages and replacements means lost production.

National Petroleum News some weeks ago published the only article to appear on the subject, telling of the mechanical equipment used.

An article in the April 28 issue will tell how one company applies the information it gathers when it puts its wells on the "scales."

Multiple Delivery Q. D. A. Given Up By Dealers in Wisconsin

Staff Special

CHICAGO, April 17

WISCONSIN Independent oil jobbers have won their point by protesting to the state some time back about alleged injustices in the Standard Oil Co.'s quantity discount method of marketing gasoline. Standard has abandoned the multiple-delivery feature of the Q. D. A. in that state at the suggestion of the attorney general, Herman L. Ekern. Undoubtedly the Independents will join Standard in giving up the so-called "intercity form of contract" for that is what they most vigorously opposed in the general Q. D. A. plan.

Since Standard officials announced on Friday that they would comply with Mr. Ekern's suggestion, rumors have traveled far and taken on various shapes but the situation has not changed with regard to the Q. D. A. outside of the state of Wisconsin. And there also the same plan is in effect except that no new contracts will be written allowing discounts to special customers wherever they may apply at a Standard Oil Co. station for gasoline. Discounts are based on quantity deliveries in one town.

No departmental order was issued by Edward Nordman, head of the state department of markets. It was a case of the oil men and the department both consenting to try out the attorney general's plan which, if it works, will end the Wisconsin controversy for all time. If it does not work, three months will develop a more interesting situation in Wisconsin than any that have existed before.

To persons familiar with the workings of the Q. D. A., and especially those who have followed the progress of its investigation by the Wisconsin Department of Markets, the attorney general's plan is plain enough. But for the benefit of persons less intimately concerned in the matter a brief resume of previous developments will not be amiss.

The Story Thus Far

ON April 13, 1925, the state department of markets issued General Order 23 which had the effect of a law. It provided that gasoline should not be sold at secret prices in Wisconsin. Oil men were obliged to post their actual selling prices at all stations and points of delivery, stipulating the conditions upon which discounts were made where there was any variation from one price. Oil men could sell at any price they wanted to, only they had to post their prices. The rule was effective May 4.

About July 1, 1925, Standard Oil Co. of Indiana instituted its famous Q. D. A. which appeared to state officials to be in violation of the price posting order, G. O. 23, because gasoline was sold through the pumps of the big companies for cash or credit at the posted price but in various cases, to various customers, discounts were allowed and refunds made in varying amounts based on contracts made elsewhere, possibly outside of the state. Thus it was impossible to post actual selling prices at pumps and stations in Wisconsin.

Early in 1926, certain Independent dealers in Wisconsin complained to state authorities that they were losing gallonage as a result of the operation of the Standard Oil Co.'s Q.D.A. They thought the Q.D.A. was unfair to them and they pointed out their grievance against it to the officials.

On the strength of complaints the department of markets launched an investigation and during February and March, 1926, conducted one-day hearings at odd times and at various places in the state. Standard officials, Independent jobbers, purchasing agents, consumers and other people were called in to testify. Mr. Nordman presided over these hearings and Mr. Ekern examined the witnesses.

The announced purpose of the hearings was to determine whether the state department should issue another order which would make "intercity Q.D.A. contracts" actually illegal until such a time as the order might be nullified by a court.

Coming Meetings

Illinois Petroleum Marketers Association, Orlando Hotel, Decatur, Ill., April 28.

American Society of Mechanical Engineers, Oil and Gas Power Conference, Mayo Hotel, Tulsa, April 23, 24.

Association of Natural Gasoline Manufacturers, Mayo Hotel, Tulsa, May 5, 6.

Wisconsin Independent Oil Jobbers, Association Hotel Conway, Appleton, Wis., May 12.

National Oil Scouts Association of America, Gunter Hotel, San Antonio, Tex., May 17, 18.

Natural Gas Supply Men, Inc., at International Exposition Grounds, Tulsa, May 17, 18, 19, 20.

Minnesota Petroleum Association and Wisconsin Independent Oil Jobbers Association, joint meeting, Hotel Stoddard, La Crosse, Wis., June 16.

American Petroleum Institute, Standardization Conference, Hotel Broadmoor, Colorado Springs, Colo., June 15, 16, 17.

At the last hearing, March 30, in Madison, Wis., Edgar Bogardus, assistant to the vice president of the Standard Oil Co. of Indiana, submitted a 2500-word typewritten statement in testimony, outlining the reasons for his company's developing and using the Q.D.A. His statement said, in short, that the Standard had been obliged to meet competition which often took desirable gasoline accounts at reduced prices arranged secretly or otherwise. It was at this meeting also that John D. Clark of the Standard Oil Co., announced that his organization would try early to arrange some method of complying with the spirit of G. O. 23 in their operation of Q.D.A.

After the hearing on March 30, an informal meeting and discussion of quantity discount was proposed by Mr. Ekern and all agreed on April 13 as the right date.

Mr. Ekern's Suggestion

AFTER summarizing the discussion on April 13 and reviewing the history of Q.D.A. briefly, the attorney general proposed that all oil companies which have summed up the quantities of gasoline purchased in different towns by one customer and used the total as a basis upon which to allow a discount, desist from the policy in Wisconsin. In cases where companies feel obligated to carry out existing contracts of this character, the attorney general proposed that they make no new contracts of this kind and let those now in force die upon expiration. In subsequent business dealings of this kind Mr. Ekern suggested that discounts for quantity purchases (both on tank wagon and service station deliveries) in Wisconsin be based upon the deliveries in a single town. He also suggested that where quantity discount agreements were verbal agreements without a contract providing for a specific date of expiration that it be considered to be for a year's duration only, from the time it first went into force.

S. O. Officials Acquiesce

THE suggestion was to the industry of the state and not to the Standard Oil Co. alone. The Standard officials have stated openly that they mean to follow it out. The Independents are likely to do so. Most of the Independents operate in only one or two towns and are not in a position to make intercity Q.D.A. contracts at all.

General Order 23, the price posting order of April 13, 1925, was amended, however, as a result of this meeting. In its amended form, the order stipulates the size of letters and figures in which the prices shall be posted at bulk and service stations. No price postings are required on tank trucks as was contemplated at first. In its new form, G. O. 23 becomes effective June 1.

News Index This Issue

National Petroleum News

General

Insurance Companies Cancel Policies After Big Fires 25
Week's Oil Shipments from Los Angeles 33
O. H. Williams, Founder of Mutual, Dead 33
Standard of California Annual Statement 34
Carrying a Gas Line Across Ship Channel .....*By Paul Wagner* 75
Oil Board Asks Geologists for Criticisms 79
First Broadside Fired in A. P. I. Publicity Campaign 80
Definition of Items in Uniform Balance Sheet 102

N. P. A. Spring Meeting

Eastern Refiners Propose Efficiency Campaign .....*By Paul Truesdell* 41
Registrations at N. P. A. Convention 46
Savings Up to 50 Per Cent Possible in Many Boiler Plants .....*By H. A. Ross* 48
Keeping Costs and Pooling Experience Will Aid Efficiency .....*By P. S. Tarbox* 60
More Cracking Capacity Needed In Future .. ..*By Charles L. Parmelee* 61
Some Ways of Reducing Waste of Steam ....*By H. S. Bell* 87
Capacity Increased By Flues In Shell Stills .. ..*By J. C. Chatfield* 84

Marketing

Intercity Q. D. A. Discontinued in Wisconsin . 26
Suggests State Build Seaboard Oil Terminal .....*By V. B. Guthrie* 65
Possibilities in Furnace Oil Marketing ....*By William A. Cahill* 100

Refinery & Natural Gasoline

Anti-Knock Quality to Feature Natural Gasoline Discussions .....*By J. C. Chatfield* 30
N. P. N. Weekly Western Refinery Figures .. 31

Production

Panhandle Gets Biggest Well *By A. F. Hinton* 28
Crude Production by Districts 32
Reports Showing of Oil in Florida 35
Weekly Oklahoma Production Report ....*By A. F. Hinton* 37
Week's Completions 37-39
Reduce Down Time and Boost Production ... .*By A. F. Hinton* 95
Individual Well Gauges Prove Valuable 98

Markets

Refinery Price Tables 115-117
Tank Wagon Price Tables 119
Complete Export Markets 120-121
Crude Oil Prices, All Fields 122
Refiners' and Compounders' Supply Prices ... 123
Oil Company Finance 124-126

Departments

We See By The Papers 70
The Editor's Viewpoint 71
Bearish Chronicle of Some Bulls 92
Industrial Catalogs 104
Oil Patents 108
New Oil Station Construction 109
On the Lazy Bench 111
Here and There 107

National Petroleum News is copyrighted, 1926, by the National Petroleum Publishing Co. Single copies, 10 cents. Subscription rated at $2.50 per year in the United States and Mexico (U. S. Money), $3.50 in Canada and $5.00 in all foreign countries. Trademark registered U. S. Patent Office. Members of Audit Bureau of Circulations, Association Business Papers, Inc.

Published at

TULSA — Bank of Commerce Bldg.

NEW YORK — 342 Madison Ave.

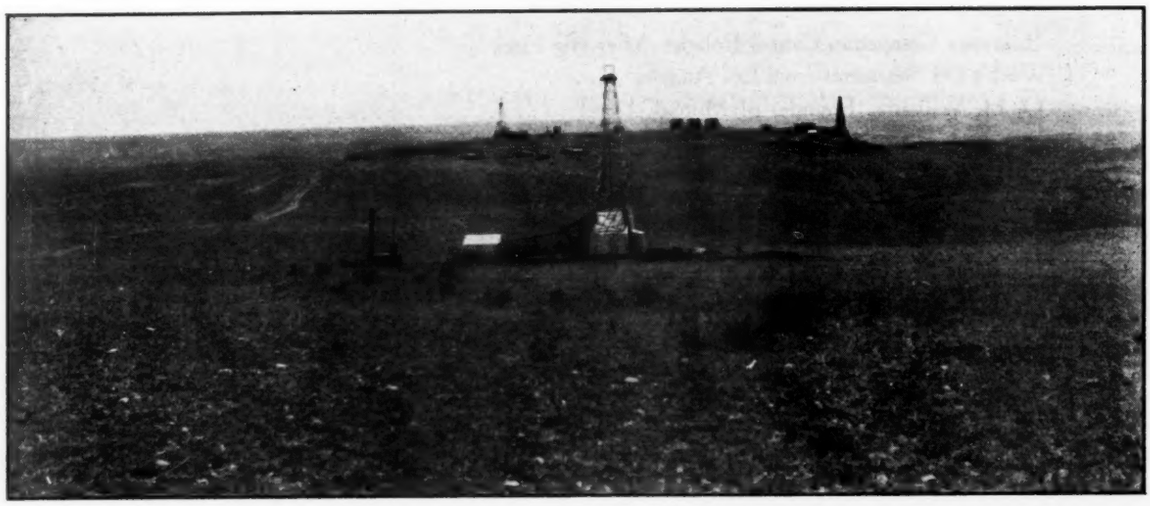
MAIN OFFICE — 812 Huron Road, Cleveland, Ohio

HOUSTON — 608 West Bldg.

CHICAGO — 360 North Michigan Ave.

Panhandle Well Makes 225 Bbls. Hourly; Outside Wells Sustain Interest

By A. F. Hinton
N. P. N. Staff Writer



N. P. N. Staff Photo

No. 1 Gulf Production Co. No. 1-B Whittenberg, drilling on north side of Canadian river, Hutchinson county, Tex., in the Panhandle field. The two derricks in the background are those of the Douglas Oil Co., the one on the right being an outstanding landmark, as it is visible from almost all points in the area.

AMARILLO, Tex., April 17

AFTER a protracted siege of bad weather, during which rain, snow and low temperatures combined seriously to hamper field work and to render oil field roads impassable, the sun came out again and the Panhandle got back to work with renewed energy. The boys got results, too, as soon as they got back on the job, as evidenced by several important wells drilled in during the week. Several tests more or less remote from production gave promise of substantial extensions of the field's productive area, and at least one big well was brought in in the heart of the pool.

This big well, being the best completed in the Panhandle to date, so far as known to the writer, is also the latest to get in, and is therefore entitled to first place in this chronicle of recent developments. The well is the No. 1 Smith of the Pattison-Lennix Oil Co., of Amarillo, and is located in the center of the NW NW SW of Section 11, Block Y, a south offset to the No. 2 well of the Dixon Creek Oil Co. After having been drilled 93 feet into the pay formation, which was topped at 2912 feet, with bottom of hole at 3005 feet, the well had a hole full of oil and was spraying some oil. It was shot with 500 quarts of nitro, after which the hole bridged. On the day following the shot, the tools were run in and the bridge was knocked out, after which the well started flowing, making 540 barrels the first hour. In the next two hours, it made 275 and 225 barrels, respectively, and for the first seven hours it flowed 1580 barrels, or an average of 225 barrels an hour for that period.

This production is at the rate of 5400 barrels daily, which makes it a large enough well to command attention in any field. The oil is reported to be of 39 degrees gravity, as good or better than other oil in the immediate vicinity. Marland Pipe Line Co. had connected to the well before it was shot, and the Pantex Pipe Line Co. also is connected, it is reported. A 5000-barrel tank is being rushed to completion to help take care of the production. Owing to the fact that connections had been made and all preparations made in advance, no oil was lost or run into earthen storage.

Owners Are Contractors

JAMES L. PATTISON, of Tulsa, who is one of the principal owners of the well, is the head of the Ponca Rig Co., and is a well-known rig building contractor who was born in Oklahoma and has spent practically all his life in oil fields of the country, most of the time in the Mid-Continent. He is variously known as "Irish" and "Shorty" to the many friends who are now congratulating him on his present good fortune. W. E. Lennix, partner of Pattison, also is a rig building contractor and has operated for many years out of Ponca City.

Another good well brought in during the past week was down in the granite wash area of Carson county, a mile away from production. This was the Marland Oil Co. No. 1-A, Burnett ranch, in the SEc NE of Section 116, Block 5, I. & G. N. R. R. Co. lands. The well got the pay at 3125 feet and after having been drilled 10 feet in started flowing between 800 and 1000 barrels daily. The doubt as to the well's exact production arises from the fact that tankage facilities were not available to handle the oil and it was run temporarily into earthen storage, making it impossible to obtain an accurate gauge. However, 800 barrels were saved in one day, so it is safe to say that the well is making at least that much.

Following the bringing in of the well, a hurry-up tank building campaign was started, and when the writer was there three tank companies were rushing work on their installations. The Marland Pipe Line Co. is building a 55,000-barrel tank only a couple of hundred feet away from the well, but it was not completed in time to receive the well's first oil. A. M. Parker, Panhandle district superintendent for the Marland Oil Co., who recently arrived on the job from Houston, came just in time to get in the thick of the battle to take care of this oil. The well came in during the worst part of the bad weather, which made matters worse, hampering the hauling in of material and slowing down the work generally.

AMERICAN REFINING CO., which owns the lease on the SW¼ of Section 115, is erecting a steel rotary der-

rick for a diagonal southeast offset to the Marland well, and the Gulf Production Co., undoubtedly will drill a south offset to it, on its lease comprising the south half of section 116. Marland probably will drill another well on its lease immediately, so that this completion means considerable new work in the immediate vicinity. Although there is production east, southeast, and southwest from the well, the nearest is about three-quarters of a mile away.

This well is located on acreage acquired by Marland from Blaisdel et al. some time ago. The company also obtained in this deal the east half of Sec. 5 and all of Sec. 6, near the town of Pantex and three-quarters of a mile west of the New Domain Oil Co. well in Sec. 33. A derrick is now being erected for Marland's first test in this acreage, located 445 feet south and west from the NEc of Sec. 6.

Another interesting Marland test is east of the field, some three miles from production. This is the No. 1-B Burnett, in the SW¼ of Section 101, Block 4, I. &. G. N. R. R., six miles east and a mile south of the No. 1-A, mentioned above. The No. 1-B is making about 22 million cubic feet of gas at total depth of 2835 feet and has the 8¼-inch casing set at that depth. A bradenhead is being set to handle the gas and the well will be drilled on down.

Good-Sized Extension

ANOTHER interesting wildcat—or at least a well too far away to be called an offset, even in the Panhandle—is that of the Badger Oil Co., in Section 8, Block 23, B. S. & F. R. R. lands, Hutchinson county, more than four miles east of production. This well, which is known as No. 1 Lewis, has 1500 feet of oil in the hole from 2900 to 2915 feet, and looks as if it will make a well when drilled in. It is now about 102 feet above sea level, its surface elevation being 3017 feet, and must be in or near the big pay. The well had a show of gas at 2810 feet and a show of oil at 2862 feet.

Still another important and interesting well being watched closely is the Amarillo Oil Co. (Prairie Oil & Gas Co.) No. B-3 Bivins, located 660 feet west of the east line and 1980 feet from the south line of Section 15, Block Y-2, Carson county. This well has been drilled to total depth of 3060 feet and at that depth was making between 25 and 30 million feet of gas and spraying an estimated 100 barrels of oil daily. Located approximately on the dividing line between the granite wash and lime producing areas, much interest is being shown as the formation the well is in, but so far it has been impossible to determine this on account of the big gas flow. Prairie officials believe the well is in sandy lime, as it had the granite wash and had drilled through it into sandy lime before the big gas was found. On drilling into this sandy lime the gas flow increased greatly and the well started spraying lime, but it has been impossible to determine whether it went into granite wash again.

N. P. N. Staff Photo

A. M. Parker

Panhandle district production superintendent, Marland Oil Co. of Texas. Mr. Parker recently arrived on the job from Houston, Tex., where he has had many years' experience in the Gulf Coast field.

The well is about a half-mile north of the old Warrick well, Potter county, which is making about 15 barrels in the granite wash. These wells are located right around the corner where Hutchinson, Moore, Potter, and Carson counties meet, and owing to the vagaries of Texas land—and county lines, considerable confusion has existed as to which county the Prairie well is in. Although other companies differ, the Prairie states it is in Carson county, and as the owner of the well, it ought to know.

Drilling operations in the Texas Panhandle now total 180, of which all except 40 are in Hutchinson county. Taking the various counties in alphabetical order, the following table shows the development activities now under way in each:

Drilling in the Texas Panhandle

County	Locations	Rigs	Drilling	Shut Down	Total
Carson	..	3	8	8	19
Dallam	..	..	..	1	1
Gray	..	1	7	1	9
Hutchinson	4	25	108	3	140
Moore	..	2	2	..	4
Potter	..	..	1	..	1
Roberts	..	..	..	1	1
Sherman	..	1	..	..	1
Wheeler	..	1	2	1	4
Total	4	33	128	15	180

Production Is Climbing

PANHANDLE production, not including the new Lennix-Pattison well, already chronicled as flowing at the rate of 5400 barrels daily, last week was 10,300 barrels from 86 wells, an average of about 120 barrels per well. It was estimated that at least 5000 barrels were shut in on account of inadequate pipe line facilities and could be produced immediately if such facilities were made available. Assuming that this is correct, and adding the Lennix-Pattison well at 5000 barrels, potential product of the Panhandle is right around 20,000 barrels today.

From now on, it is probable that new locations will average 25 a week for an indefinite time, and as a result of these new wells starting up, it is estimated that 60 days from now, completions will average 20 a week. An engineer's estimate, made before the Lennix-Pattison well came in, was that the field would be producing 25,000 barrels a day by July 1, and that it would double that figure by Oct. 1. This estimate placed 50,000 barrels as the field's peak, taking into consideration only wells in and territory then proven, and went on to say that by Jan. 1, production probably would be about 45,000 barrels daily.

All such long distance estimates made in advance of a field's known area are of course largely in the nature of guesses, being based only on known conditions. In the case of the Panhandle, particularly, one factor enters greatly into the correctness of such estimates. This is the matter of adequate pipe line facilities. It is conceivable that these estimates will be considerably too low if competition for oil leads to the provision of thoroughly adequate pipe line facilities together with raises in price to conformity with Mid-Continent prices. On the other hand, it is very probable that they will be too high if such facilities are not provided. Thus, we are thoroughly alibied, no matter what happens in the Panhandle between now and the first of next year.

Second Deep One at Spindletop

HOUSTON, April 17.—Yount-Lee Oil Co., drilling on the south flank of the Spindletop salt dome, has brought in another offside well, No. 3 Gladys, flowing 3500 barrels, 15 per cent water, at 3015 feet. A well of the Yount-Lee company on the McFadden tract last December produced the first flank oil at Spindletop, which was the famous "gusher" pool at caprock levels which originally brought attention to Gulf Coastal Texas in 1901.

MITCHELL, NEB.—Mr. Frye is installing carload storage tank for kerosene here.

Anti-Knock Qualities of Natural Gasoline Will Be Discussed at Convention

By J. C. Chatfield
N. P. N. Staff Writer

Staff Special
TULSA, April 19

ANTI-KNOCK qualities of natural gasoline will be a principal topic for discussion at the fifth annual convention of the Association of Natural Gasoline Manufacturers to be held at the Mayo hotel on May 5 and 6. Two nationally known technologists are on the program for papers on this quality of the product.

A. Ludlow Clayden, research engineer for the Sun Oil Co., Philadelphia, will present a paper on the "Characteristics of Natural Gasoline as a Non-Detonating Agency." In his work for the Sun company Mr. Clayden has made a detailed study of the anti-knock qualities of blending material used in making finished motor fuels. His paper will present the views of a large user of natural gasoline.

At the same time university laboratories have been studying the anti-knock qualities of various types of gasoline. Dr. E. H. Leslie and Dr. George G. Brown, professors of chemical engineering of the University of Michigan, have prepared a paper for the convention on "The Relation of Volatility to Acceleration and Anti-Knock Properties of Natural Gasoline." Dr. Brown will read the paper.

It will be followed by a general discussion to be led by G. G. Oberfell, of the Phillips Petroleum Co., probably the best known technologist in the natural gasoline industry. The Clayden paper will be discussed by D. E. Buchanan, vice president of the Chestnut & Smith Corp.

Buyer's Viewpoint

ANOTHER phase of natural gasoline from the buyer's viewpoint will be presented by Dr. E. R. Lederer, vice president of the Texas Pacific Coal & Oil Co. He has prepared a paper on the "Economic Value of Natural Gasoline to Refiners." This subject will be discussed under the leadership of S. C. Carney, technical adviser to the president of the Roxana Petroleum Corp.

A. V. Bourque, secretary of the association, announced today that W. R. Boyd, Jr., assistant counsel for the American Petroleum Institute, will be the guest of the gasoline manufacturers at their convention and speak on "Industrial Solidarity."

On the opening day of the convention delegates and visitors will be the guests of Wescott & Greis at a Dutch lunch at the close of the morning session.

The annual banquet will be held the evening of the 6th in the ball room of the hotel, in the form of a dinner dance. Speakers will be C. C. Herndon, vice-president of the Skelly Oil Co. and James A. Veasey, general counsel for the Carter Oil Co. For the convenience of natural gasoline men living in Texas, Louisiana and Arkansas, the Katy railroad has agreed to hold its train to the south until 10:15 on the night of the 6th so that everyone may stay until the banquet is over.

Manufacturing Problems

AS in the past, a large part of the convention program of the association will be devoted to manufacturing problems. "Research on Absorption Oil," will be presented by Arthur L. Davis of the Empire Refineries Inc. The whole subject of absorption oil will be thrown open to discussion of plant operators and technologists under the leadership of A. F. Maxson of the Sun Oil Co.

"Depreciation and Depletion" will be given by A. B. Morris of the Chestnut & Smith Corp. Discussion of the subject will be led by George S. Winters of the Phillips Petroleum Co.

A number of important committee reports will be submitted, including one on gas testing to be read by George P. Bunn, assistant superintendent of the Phillips Petroleum Co., and one on gas contracts to be presented by J. H. Boyle, treasurer of the Chestnut & Smith Corp.

General Invitation

E. L. PECK, manager of the Empire Gasoline Co., who is president of the association, has issued an invitation to plant operators and all others who are interested in natural gasoline to attend the convention. All meetings will be open.

The Association of Natural Gasoline Manufacturers was organized April, 1921, when a small group of manufacturers gathered to discuss the distressing conditions in their industry. W. M. Welch, manager of the Tidal Refining Co., was elected as president and a few weeks later A. V. Bourque was made secretary. Mr. Bourque has served the association continuously since that time.

D. E. Buchanan, vice president of the Chestnut & Smith Corp., was made president at the 1923 convention after Mr. Welch had served two years, and served until last spring when he was succeeded by Mr. Peck.

Standard Grades

ONE of the most outstanding achievements of the association has been the standardization of grades of natural gasoline. When the organization was formed natural gasoline was in bad repute due to the fact that it had been mixed with kerosene and offered as motor fuel. It was in bad repute with refiners since there was no established gradings.

Standards were fixed for both the raw natural gasoline and for blended products. When the refiners had been educated to the use of natural gasoline to the point where blending had virtually ceased at gasoline plants because of the ready market for unblended goods, the blend specifications were dropped.

With the advent of better manufacturing methods which allowed manufacturers to produce high gravity, high recovery gasoline, it was found necessary to increase the number of grades to 5 by the establishment of Grades Double A and Double B.

Operators' Meeting

DURING the past two years the association has sponsored group meetings of plant operators in the field. At these sessions plant foremen, superintendents and other employees meet and discuss the practical problems they meet from day to day.

Much of the work of the association has revolved about operating conditions. Extended tests have been held under its auspices on the taking of vapor tension, and determining the content of gasoline in gas.

The organization's members were active in the Saybolt litigation which resulted in throwing the absorption process open to general use without the payment of royalties.

One of the important activities of the organization has been standardizing forms of contracts between producers of gas and manufacturers of gasoline, on a fair basis to both by concerted work of the organization in co-operation with sellers. It is interesting to note that some members of the association are sellers of gas and not manufacturers of gasoline. An example is the Prairie Oil & Gas Co.

At the first convention of the association there were 85 persons present. Each year the attendance has grown. A year ago 596 persons attended the sessions. Membership in the organization has grown in the same manner. It was recently announced by President Peck that the members of the association produce more than 60 per cent of all natural gasoline produced in the United States. It has members in eastern and California fields as well as in the Mid-Continent.

Compilation Of Mid-Continent Refinery Operations

All Rights Reserved to National Petroleum Publishing Co.

National Petroleum News

Mid-Continent Refinery Operations Week Ended April 16 (By Telegraph)

	Kansas	%Change Previous Week	Oklahoma	%Change Previous Week	No. & Cent. Texas	%Change Previous Week	No. La.-Ark.	%Change Previous Week	Total	%Change Previous Week	Totals Week Ended Mar. 19
Plants Reporting	23		46		41		14		124		124
Daily Cap. (Bbls.)	98,200		165,900		144,300		51,700		460,100		460,100
Da. Av. Crude Runs	48,977	+ 5.4	98,210	+11.9	54,069	+ 0.5	44,963	+ 0.1	246,219	+ 5.7	235,998
Da. Av. Other Oils	1,465	—69.2	2,719	.....	3,751	—28.6	725	.....	8,660	—10.8	8,115
GASOLINE—Gallons											
Stocks April 9	13,610,633		51,930,556		18,276,890		6,645,512		90,463,591		94,359,615
Prod. 4-9 to 4-16	7,968,638	+ 4.3	13,738,347	+12.1	5,802,839	— 2.2	3,258,240	+13.4	30,768,064	+ 7.2	29,648,027
Ship. 4-9 to 4-16	7,652,200	— 8.1	14,919,219	+25.0	6,512,684	+ 1.4	3,017,084	— 0.2	32,101,187	+ 8.1	28,222,053
Stocks April 16	13,927,071	+ 2.3	50,749,684	— 2.3	17,567,045	— 3.9	6,886,668	+ 3.6	89,130,468	— 1.5	95,785,589
Ratio Sales to Prod	96.0%		108.6%		112.2%		92.6%		104.3%		95.2%
KEROSENE—Gallons											
Stocks April 9	1,520,742		4,500,873		1,284,909		354,790		7,661,314		8,149,727
Prod. 4-9 to 4-16	1,194,897	— 3.7	1,997,225	+ 3.1	914,076	—22.1	464,075	+ 2.6	4,570,255	— 4.9	5,530,422
Ship. 4-9 to 4-16	1,279,416	+35.7	3,027,020	+ 8.6	1,015,611	— 8.4	511,553	+ 4.7	5,833,600	+ 9.5	5,088,602
Stocks April 16	1,436,205	— 5.6	3,471,078	—22.9	1,183,374	— 7.9	307,312	—13.4	6,397,969	—16.5	8,591,547
Ratio Sales to Prod	107.1%		151.6%		111.1%		110.2%		127.6%		92.0%
STOVE DISTILLATE—Gallons											
Stocks April 9	263,059		1,796,140		161,013		15,582		2,235,794		2,688,292
Prod. 4-9 to 4-16	426,313	— 8.8	466,457	—16.6	298,526	—72.6	26,334	— 8.1	1,217,630	—43.2	2,430,252
Ship. 4-9 to 4-16	421,995	—28.6	573,278	—28.6	341,591	—69.7	18,984	— 5.2	1,355,848	—46.7	2,034,356
Stocks April 16	267,377	+ 1.6	1,689,319	— 5.9	117,948	—26.7	22,932	+47.2	2,097,576	— 6.2	3,084,188
Ratio Sales to Prod	99.0%		122.9%		114.4%		72.1%		111.4%		83.7%
GAS OIL—Gallons											
Stocks April 9	6,437,578		34,189,147		6,256,766		5,969,104		52,852,595		51,979,211
Prod. 4-9 to 4-16	1,252,185	+ 4.0	2,398,820	+170.2	233,725	—38.7	2,453,321	—10.8	6,338,051	+35.2	3,264,240
Ship. 4-9 to 4-16	1,235,666	+63.1	1,212,203	—11.8	254,441	—31.6	2,259,181	+10.1	4,961,491	+ 8.9	4,155,283
Stocks April 16	6,454,097	+ 0.3	35,375,764	+ 3.5	6,236,050	— 0.3	6,163,244	+ 3.3	54,229,155	+ 2.6	51,088,168
Ratio Sales to Prod	98.7%		50.5%		108.9%		92.1%		78.3%		127.3%
FUEL OIL—Gallons											
Stocks April 9	5,388,042		35,971,911		17,771,743		4,284,802		63,416,498		74,369,041
Prod. 4-9 to 4-16	4,515,090	+10.2	8,058,248	+ 6.9	7,855,956	+15.5	6,857,709	— 1.2	27,287,003	+ 7.5	25,166,929
Ship. 4-9 to 4-16	4,819,382	— 0.5	8,022,286	— 5.6	7,770,463	+ 4.8	6,870,481	+ 3.6	27,482,612	+ 0.3	28,559,339
Stocks April 16	5,083,750	— 5.6	36,007,873	+ 0.1	17,857,236	+ 0.5	4,272,030	— 0.3	63,220,889	— 0.3	70,976,631
Ratio Sales to Prod	106.7%		99.6%		98.9%		100.2%		100.7%		113.5%

124 Refiners Again Reduce Gasoline Stocks

By Telegraph

TULSA, April 20

GASOLINE shipments from 124 Mid-Continent refineries increased more than 2,000,000 gallons during the week ended April 16 as a result of better weather conditions in middle western states. Manufacturers increased their production by 2,000,000 gallons during the week to 30,768,064 gallons. The increase in production did not catch up with the larger demand, however, and stocks were reduced 1,300,000 gallons to 89,130,468 gallons.

Gasoline stocks at the group of plants from which National Petroleum News gathers weekly reports, have been reduced over 7,000,000 gallons since March 5 when gasoline business began to pick up. During the four weeks ended April 16 stocks were reduced 6,655,121 gallons. Current stocks represent 19 days' supply at the rate of shipment maintained last week.

With the exception of gas oil, stocks of principal commodities were reduced. Shipments of kerosene increased 9.5 per cent to 5,833,600 gallons, resulting in a reduction in stocks of more than 1,000,000 gallons to 6,397,969 gallons. The entire group of 124 plants now have only a little more than a week's supply of kerosene on hand. Stocks of stove distillate were reduced to 2,097,576 gallons.

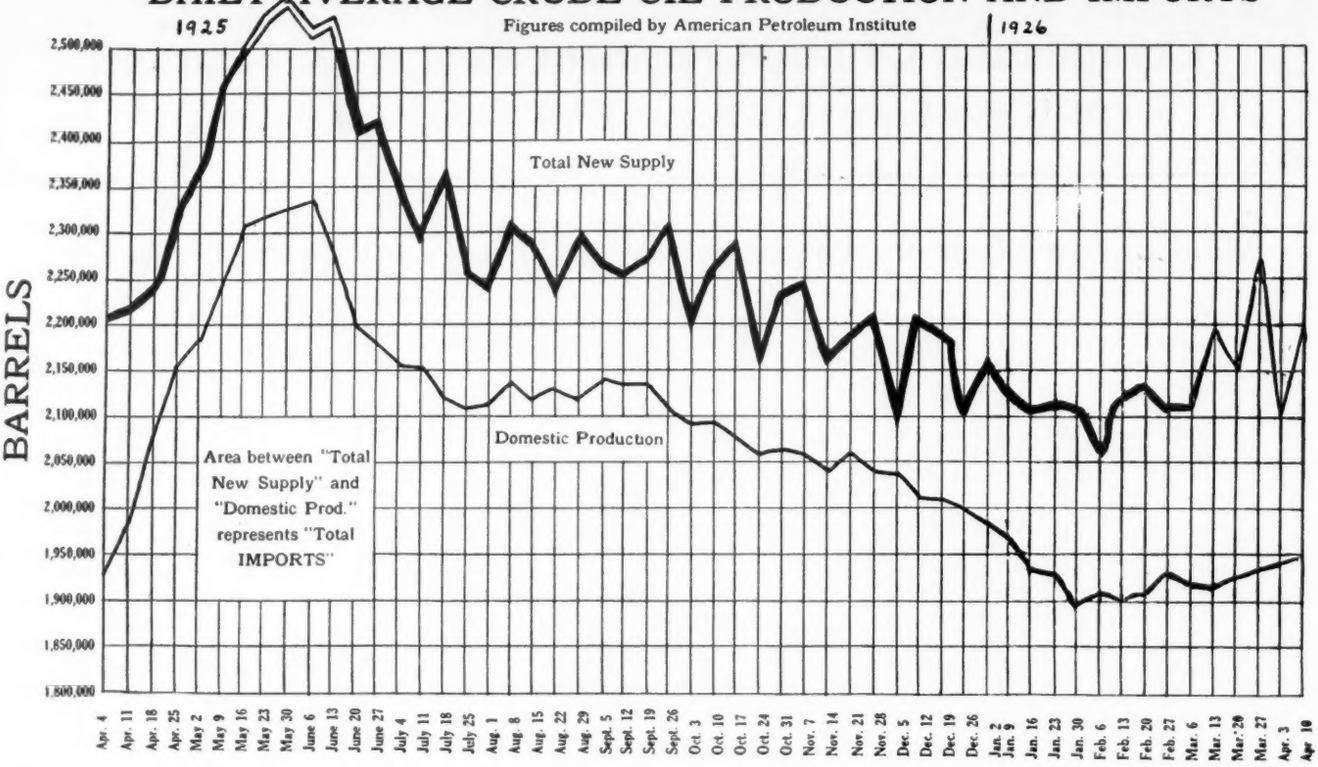
Shipments of fuel oil increased slightly during the week but larger crude runs resulted in an increase of 2,000,000 gallons in production. Stocks were reduced only 200,000 gallons during the week.

Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended April 16. Change in stocks figured from March 19.

	Gallons
Gasoline	
Production	120,111,715
Shipments	126,766,836
Net change in stocks	—6,655,121
Ratio sales to production	105.5%
Kerosene	
Production	19,833,686
Shipments	22,027,264
Net change in stocks	—2,193,578
Ratio sales to production	111.1%
Stove Distillate	
Production	6,765,691
Shipments	7,752,303
Net change in stocks	—986,612
Ratio sales to production	114.6%
Gas Oil	
Production	20,628,697
Shipments	17,487,710
Net change in stocks	3,140,987
Ratio sales to production	84.8%
Fuel Oil	
Production	107,413,737
Shipments	115,169,479
Net change in stocks	7,755,742
Ratio sales to production	107.2%

DAILY AVERAGE CRUDE OIL PRODUCTION AND IMPORTS



This chart is based on official complete figures of A. P. I and is a week older than the production estimates given in regular tabular form

Crude Production by Districts

Daily average gross crude output of United States, by fields, for week ending with dates given below, as compiled by American Petroleum Institute

National Petroleum News

OKLAHOMA

	April 17	April 10
North Braman	2,350	2,650
South Braman	9,500	10,000
Blackwell	3,950	3,900
Hubbard	1,850	1,850
Thomas	5,200	5,950
Tonkawa	37,800	38,800
Garber	33,150	37,850
Burbank	41,750	41,650
Osage, outside Burbank	32,900	32,850
Watchorn	2,450	2,500
Cushing	21,900	21,950
Yale-Jennings	16,100	16,100
Davenport	17,050	18,550
Bristow-Slick	30,200	30,100
North Okmulgee	17,900	17,900
Lyons-Deaner	4,250	4,250
Stroud	2,350	2,400
Cromwell	18,500	18,550
Papoose	12,300	12,500
Wewoka	31,650	32,800
Duncan district	7,350	7,350
Graham	9,500	9,500
Fox	4,100	4,100
Healdton	14,850	14,900
Hewitt	12,150	12,150
Others	67,600	68,100
Total Oklahoma	458,650	469,200
Decrease		10,550

* * *

KANSAS

Florence-Covert	1,750	1,750
Peabody-Elbing	4,350	4,350
Eldorado-Towanda	13,900	13,900
Augusta-Fox-Bush	4,750	4,800
Rainbow Bend	4,900	4,750
Russell	5,400	5,500
Greenwood County	41,750	40,800
Others	25,350	25,450
Total Kansas	102,150	101,300
Increase		850

NORTH LOUISIANA

	April 17	April 10
Homer	5,800	5,800
Haynesville	10,250	10,300
Caddo, light	8,550	8,500
Caddo, heavy	2,200	2,150
De Soto, Red River	3,950	3,950
Elm Grove	600	600
Bellevue	2,600	2,500
Cotton Valley	8,350	8,100
Urania	8,150	9,250
Total North Louisiana	50,450	51,150
Decrease		700

ARKANSAS

El Dorado	7,400	7,450
Smackover, light	17,950	17,850
Smackover, heavy	135,200	133,750
Stephens	1,550	1,650
Nevada	3,000	3,000
Lisbon	6,250	5,750
Total Arkansas	171,350	169,450
Increase		1,900

* * *

SOUTHWEST TEXAS

Luling	22,650	22,650
Mirando	6,600	6,600
Somerset	2,150	2,250
Lytton Springs	6,850	7,330
Piedras Pintas	250	200
Others	650	700
Total Southwest Texas	39,150	39,700
Decrease		550

GULF COAST

Goose Creek	8,850	8,900
Hull	18,300	18,250
Saratoga	1,200	1,300
Blue Ridge	450	600
Damon Mound	900	1,000
Batson	1,200	1,300
West Columbia	9,400	9,350
Humble	3,550	3,550
Pierce Junction	1,300	1,650
Sour Lake	4,050	3,850
Spindletop	4,350	2,100
Orange County	11,650	12,550
Edgerly	1,100	1,100
Evangeline	1,100	1,100
Vinton	6,250	6,300
Lockport	2,650	2,850
South Liberty	6,000	6,100
Big Creek	1,100	1,300
Boling	3,850	2,150
Others	1,250	1,250
Total Gulf Coast	88,500	86,550
Increase		1,950

* * *

NORTH TEXAS

	April 17	April 10
Burkburnett	12,300	12,350
Electra	16,200	16,200
Iowa Park and K-M-A	4,450	4,400
Wilbarger	12,850	12,650
Panhandle	8,200	7,600
Petrolia	450	450
Archer County	31,150	31,250
Others	2,000	1,300
Total North Texas	87,600	86,200
Increase		1,400

EAST CENTRAL TEXAS

Mexia	13,400	13,200
Currie	1,050	1,050
Richland	1,700	1,800
Corsicana-Powell	30,550	31,100
Wortham	9,400	9,600
Total East Central Texas	56,100	56,750
Decrease		650

WEST CENTRAL TEXAS

Stephens County	13,450	13,500
Eastland County	5,950	6,000
Desdemona	2,650	2,650

Young county	7,850	7,850
Palo Pinto County	550	550
Callahan County	3,450	3,450
Shackelford County	2,750	2,750
Reagan County	34,800	35,300
Others	10,000	10,100
Total West Central		
Texas	81,450	82,150
Decrease		700

ROCKY MOUNTAIN

WYOMING

	April 17	April 10
Salt Creek	55,200	52,950
Grass Creek	2,800	2,800
Elk Basin	600	600
Big Muddy	3,400	3,400
Lost Soldier	4,250	4,200
Rock River	3,000	2,950
Teapot Dome	1,350	1,350
Others	4,650	4,900
Total Wyoming	75,250	73,150
Increase		2,100

MONTANA

Cat Creek	2,950	2,950
Sunburst	18,500	19,800
Total Montana	21,450	22,750
Decrease		1,300

COLORADO

Moffat (Craig)	2,900	2,850
Fort Collins	2,650	2,600
Florence	400	400
Others	500	500
Total Colorado	6,450	6,350
Increase		100

NEW MEXICO

Artesia	3,000	3,000
Hogback	450	450
Rattlesnake	500	550
Total New Mexico	3,950	4,000
Decrease		50
Total Rocky Mountain	107,100	106,250
Increase		850

CALIFORNIA

Santa Fe Springs	49,000	50,000
Long Beach	103,000	103,000
Huntington Beach	45,500	44,000
Torrance	28,000	29,000
Dominguez	21,500	21,000
Rosecrans	18,000	19,000
Inglewood	51,000	51,000
Midway-Sunset	93,000	93,000
Others	187,000	187,000
Total California	596,000	597,000
Decrease		1,000

EASTERN

(Including Ill., Ind., Ky., Ohio, W. Va., Pa., and N. Y.)	101,500	100,500
Increase		1,000

PRODUCTION SUMMARY

Prod. east of Rockies	1,344,000	1,349,200
Decrease		5,200
Total Prod. in U. S.	1,940,000	1,946,200
Decrease in U. S.		6,200

Late Price Changes

T.w. price kerosene advanced 1 cent, Butte and Helena, Mont., and ½ cent at Salt Lake City, Utah, and Boise, Ida., **April 20.** Prices at these points in the accompanying tank wagon table are not changed, as prices in that table are those in effect April 19.

S. O. Kansas Men Promoted

CLEVELAND, April 17.—The resignation of Thomas Black as vice-president and director of the Standard Oil Co. of Kansas, Neodesha, has been followed by several promotions. A. S. Hopkins who was vice-president and superintendent, is now vice-president and general manager. P. H. Rohde, sales manager, has been elected a director to fill the vacancy caused by Mr. Black's resignation. E. A. Metcalf has been promoted to superintendent from assistant superintendent. The position of second vice-president has not been filled.

Shipments from Los Angeles Week Ended April 17

	Crude	Gasoline	Gas Oil	Fuel Oil	Tops	Kerosene	All Products
Atlantic Domestic	180,000	148,732	.....	47,000	.....	.....	375,732
Atlantic Foreign	112,315	224,334	.....	.....	.....	.....	336,649
Pacific Domestic	661,320	108,747	10,000	163,000	.....	.....	943,067
Pacific Foreign	110,406	55,171	19,000	375,605	.....	.....	560,183
Total Shipments Week Ended Apr. 17							2,215,630
Total Shipments Week Ended April 10							2,492,772
Total Shipments Week Ended April 3							1,791,271

Ships Clearing for Atlantic Coast

W. L. Steed, to Baltimore, with 73,732 barrels gasoline for Pan American Petroleum Co.

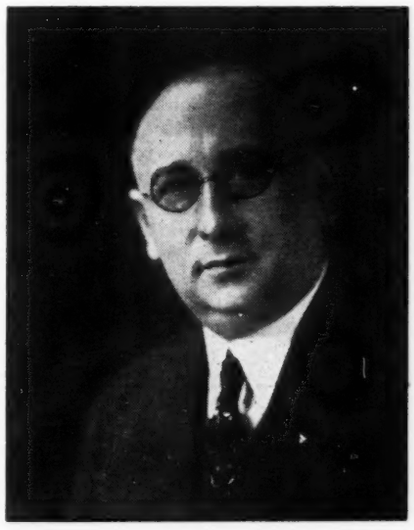
Birkenhead, to Baltimore, with 75,000 barrels crude for Standard Oil Co. of New Jersey.

Occidental, to Port Arthur, with 75,000 barrels gasoline for The Texas Co.

Fred W. Weller, to Bayonne, with 105,000 barrels crude, for Standard Oil Co. of New Jersey.

Sucrosa, to Bayonne, with 47,000 barrels fuel oil for Cities Service Refining Co.

Former Head of Mutual Dies Suddenly



Oscar H. Williams

KANSAS CITY, April 19.—In the death of Oscar H. Williams, Sunday night, the oil industry lost one of its leaders in that part of the country where his endeavors had centered, Kansas and the Rocky Mountain territory. Death was from apoplexy and was unexpected by his family, as he had spent a pleasant day.

Organizer of the Mutual Oil Co., Mr. Williams merged its identity with that of the Continental Oil Co., long time dominant marketing company of the Rocky Mountain territory, late in 1923 and retired from active participation in company affairs on March 1, 1924. Ill health and the need of a rest caused his retirement at that time.

Since his retirement from active participation in the Mutual Oil management Mr. Williams' business interests were largely centered in the Mutual Bank and the Mutual Securities Co., of Kansas City.

He was born 46 years ago in Schellburg, Pa. He is survived by his widow, a son, two daughters, one brother and four sisters.

Clerk in a wholesale grocery establishment of Kansas City, as beginning of his business career, Mr. Williams engaged in the oil business in Lawrence, Kans., in 1910. He built one station as a start. Presently he had made enough money to build a second station and this was the manner of the growth. Opportunities came before long to engage in the oil industry of Wyoming through purchase of interests in producing companies. A refinery was acquired at Cowley and at Glenrock, Wyo., and the Mutual—at first incorporated in Maine as the Elk Basin Petroleum Co., changed to Elk Basin Consolidated, then to Mutual—became a substantial factor in the producing, refining and distributing of oil in the Rocky Mountain territory.

Mr. Williams was the guiding force of the company for a number of years.

J. M. Cameron, Pioneer Oil Man, Dies

ST. LOUIS, April 17.—John M. Cameron, for many years a refiner in the Mid-Continent field, who died March 29 of influenza in St. Louis, built and operated for years the first Independent refinery in the Mid-Continent field to ship gasoline and refined oils in tank car lots. He also had wide experience in producing and marketing petroleum. As a refiner, it was once said of him that he could get more out of a barrel of crude oil than any man in the industry.

Mr. Cameron made extensive research in refining and developed many improvements in refinery operations. He organized the Cameron Refining Co. of Oklahoma and operated the plant for the past 10 years and was its president until his death.

The widow, two sons, John M., Jr., and Ossian, and a daughter, Alice Elizabeth, survive him. He is survived also by three brothers, Ossian Cameron, a lawyer of Chicago, the Rev. A. E. Cameron of Albion, Mich., and Dr. Solon Cameron of St. Louis, and three sisters, Mrs. Edgar E. Strothers of Shanghai, China, Minnie M. and Annie Belle Cameron of St. Louis; and Nancy and William Stewart Wallace of St. Louis, children of a deceased sister.

New Panhandle Line Ready by May 1

Staff Special

AMARILLO, April 17.—Marland Pipe Line Co. of Texas is busily engaged in laying an 8-inch welded line from Carson-Hutchinson county production to Panhandle, Texas, a distance of 26 miles. Ditching on the line has been 90 per cent completed, having progressed rapidly and successfully through the use of a Buckeye ditcher.

The line is being buried 38 inches deep to protect it from frost, but the ditch was dug with little trouble, only a comparatively small amount of rock being encountered. About 17 miles of the line is welded and ready for test and this work is also progressing rapidly. This work is being done by Kelly & Dempsey, pipe line contractors of Tulsa. From present indications, the line will be complete and ready to run oil by May 1.

The line will have capacity of about 25,000 barrels daily. Two pump stations are being built, one in the SW¼ of Section 5, Block Y and one in Section 116. Both will be steam stations, using 70 h. p. boilers and 18-5-18 National Transit pumps. At the station in Sec. 5, four 55,000-barrel tanks are being erected, and two tanks of the same size are under construction at the other station. The company also is building a 50-car loading rack at Panhandle and will probably erect a 55,000-barrel tank there. All these tanks are being equipped with steam coils for heating the oil when cold weather makes such treatment necessary.

The company plans to keep its line free from paraffin accumulated by frequent use of scrapers. It will start a scraper through the line as soon as it starts running oil and will keep them going constantly with the idea of not giving the paraffin time to accumulate. It does not anticipate trouble in handling the oil, even in the coldest weather, as all precautions will be taken to prevent plugging of the line.

The Marland at present is using the line of the Plains Pipe Line Co., which has a 4-inch line from the field to Panhandle and is laying a 6-inch alongside of it. This six-inch has been completed and is in use on the south half of the line and is now being laid on the north end. Marland is reported to be shipping out about 2000 barrels a day in tank cars with present facilities, but will be in a position to increase this amount greatly when its line and loading rack are put into service.

C. W. Curtis recently located in the Big Lake district, is district superintendent for the Marland Pipe Line Co. of Texas and the Kay County Gas Co., with headquarters in Amarillo.

JAMESTOWN, PA.—McDowell Service & Supply Co. is installing six 20,000 gallon storage tanks for gasoline and kerosene. Gravity system of loading has been installed, according to G. A. McDowell, owner of the company.

R. G. Browne,
Great Western Oil Co., Cleveland, Ohio.
In attendance at spring meeting of National Petroleum Association at Cambridge Springs.

"Free Air" Is Reed's Trade Puller

The only question asked motorists at his Memphis station is "How much air do you carry in your tires?"

How service, as he carries it out, brought business back in the face of a two-and-a-half-cent lower price of stations of other companies will be told in the April 28th issue of National Petroleum News.

Power Conference Will Be Held In Tulsa

Staff Special

TULSA, April 17.—The Oil & Gas Power Conference of the Mid-Continent Section of the American Society of Mechanical Engineers will be held at the Mayo hotel here April 22, 23, 24. At the various meetings six papers will be presented.

Fred Thilenius, assistant master mechanic for the Prairie Pipe Line Co., will read a paper on Diesel Engines for Pipe Line Power. William G. Heltzel of the Sinclair Pipe Line Co., will present the results of original research in his paper on Fluid Flow in Pipe Lines. He has studied the flow of air, gas, gasoline, crude and fuel oil through lines and made a study of the viscosity of air and gas.

Gustav Egloff will present a paper in which he will give the results of studies into the non-detonating properties of cracked gasoline when blended with natural gasoline. Earle W. Hodges of the Henry L. Doherty Co., will talk on Public Relations.

A. J. Schlosser, general superintendent of gasoline plants for the Barnsdall Oil Co., will present a paper on Gas Engines.

Ventura Gusher Deepest Paying Well

By Telegraph

LOS ANGELES, April 17.—The Associated Oil Co.'s Lloyd No. 26 well, which came in yesterday, in the Ventura field, is regarded as the deepest commercial producer in the world, as well as the largest oil well completed in California since the beginning of 1924.

The new well is flowing through the drill pipe at the rate of 6800 barrels per day, with 3,000,000 cubic feet of gas, from a depth of 5925 feet, producing formation being 1346 feet thick. The crew circulated for a time endeavoring to kill the heavy gas pressure, but finally decided to let the well come in. It is under perfect control. Oil is better than 29° A. P. I.

Eight and five-eighths inch casing is set down to 4579 feet, and from there on down the hole is open, but the drill pipe serves to conduct the flow of oil to the surface. The new well is on the north side of the 4000-acre Lloyd lease which Associated is developing at Ventura.

On this same lease the company has three other large wells flowing "barefooted" because heavy gas pressure prevented their completion.

The biggest well completed in California during 1924 was Associated's De Francis No. 23 at Dominguez, rated at about 6000 barrels. The largest in 1925 was Petroleum Securities Co.'s Rubel No. 9 at Inglewood, doing 4667 barrels flush.

E. J. Miley's famous Athens No. 6 at Rosecrans, produces from a depth of about 7500 feet but never flowed over 1500 barrels in a day and did not remain long above the 500-barrel mark, being at this time a negligible producer.

Will Move to Fort Worth

Staff Special

FORT WORTH, April 17.—North Central Texas headquarters of The Texas Co., it is announced, will be moved to Fort Worth about May 15. L. E. Barrows, division manager, will move from Cisco to Fort Worth, where M. W. Bahan already maintains offices for the natural gas department. The Wichita Falls district, which includes the Panhandle region, will continue to be administered through the offices in Wichita Falls of J. L. McMahon, division manager.

AMARILLO, TEX.—Western Lubricating Co. of Texas, with Texas headquarters here, has completed a compounding plant for lubricating oils. It also includes a laboratory and 60,000 gallons storage.

J. B. Bradford, who is president of the Western Lubricating Co. of Wichita, Kans., is also president of the Western Lubricating of Texas. Ben O. Sanford is vice president and Frank M. Parris, treasurer and general manager.

Oil Man from Mid-Continent Makes Report on Florida Test

CLEVELAND, O., April 17. REPORTS were widely circulated all the past week concerning discovery of oil in Florida. Such reports have been heard from time to time for several years. The number of authentic showings of oil or gas in Florida, to date, have been imposingly small.

This latest report concerned a well that has been drilling for some time some 11 miles east of Palmdale, Glades county, which is toward the southern part of the state. Palmdale is inland from Lake Okeechobee, the large, shallow drainage basin. Palmdale is some 40 miles southwest of Okeechobee, a town situated on the north tip of the lake of same name; is some 12 miles west of the lake itself; is some 100 miles almost due west of Palm Beach.

In a territory surfaced by the Caloosahatchee formation of Pliocene age, this well started drilling some number of months ago. It is called the No. 1 Brewton well, for the principal backer of the enterprise. A number of Fort Myers citizens are interested in the test.

Reports were at first somewhat wild, as they generally have been concerning showings of oil in Florida tests. A number of newspapers in the South published dispatches which called the well a large one. From the best sources National Petroleum News learns that the well at most had a good showing at about 2780 feet. The oil was heavy and black.

Enterprising Editor

AMONG the various newspaper reports published, the best summary was that contained in the April 15 issue of the Tropical News, daily newspaper published at Fort Myers, Fla. The editor, realizing his inability to make an authoritative report on the well, sought out Robert E. Ellis, formerly of El Dorado, Kan., experienced oil man who is now living in Fort Myers. He recorded his impressions thus:

"The well which has been in process of drilling for many months in Glades county, northeast of Palmdale, has finally yielded a reward to the drillers in the form of some crude oil. The writer visited this well on Sunday, April 11, and found the following to be facts:

"The well was in charge of Driller Link, who, I am satisfied, is an old timer at his profession. I found the well shut down and rigged up in what oil country people would call a mysterious manner. The equipment is delapidated to say the least. A mystery well in the oil country is always more or less of a joke, because it is looked upon as 'the bunk' until the contrary is proved to be true. I talked at length with Mr. Link and inspected the well as best I could in view of the fact that it was shut down. From the length of the drilling line on the rig, I would judge the well had reached a depth of approximately 2,800 feet. Some four and one-quarter inch casing has been set, but I could not learn how much, nor could I obtain a log of the well.

"Information being offered was misleading as to the depth of the oil-bearing formation, the amount of oil, the grade of it and the presence of water in the hole, so it was necessary for the writer to use his own judgment and make his own deductions, based on many years of actual experience in prospecting for and producing oil.

"There are many wild reports in circulation concerning this well. Many of them are sincere and are based simply on lack of knowledge rather than dishonesty. This is the usual situation when a little oil is found in new or "wildcat" country. The report is that oil sand has been struck and the estimates of production run from 50 barrels up to hundreds of barrels. After obtaining a sample of the oil-bearing stratum and subjecting it to a test in hydrochloric acid, I concluded that it is not sand but a brown lime rock. It is very hard and its general appearance indicates that it is very similar to a break in the Mississippi lime, which, to use a geological expression, is in the Cretaceous formation. This formation should occur at approximately this depth, according to the log of a well, drilled in Sumter county, published in the report compiled by Herman Gunter on "Petroleum Possibilities in Florida."

Oil of Low Grade

THE oil is a heavy black lime oil. Not having a hydrometer with me, I could not make the gravity test, but from other tests I conclude that it is low in gravity and of poor grade. From the amount of oil which has been bailed from the hole, I am quite sure that the well as it stands would not make over three barrels in 24 hours. Last but not least, we shall not know, until there is some further drilling in this well, whether it has actually been 'drilled in' yet or not. In other words we do not know yet whether the oil-bearing formation has been drilled through. If it has, it is not much of a well. If it has not, there is a good chance that it may turn out to be a producer. The volume of production can only be determined by drilling.

"In the oil fields, lime oil of this grade is not valuable for pipe line transportation. However, wells of this nature are often found on the edge of an oil pool, and many good oil pools have been opened up as a result of showings of this kind.

"The fact remains that today there is a hole in the ground in Glades county, Florida, with an oil formation with oil in it. Our only hope should be that more oil will be found, as it is the greatest industry any state could have and the real oil men from the oil country bring prosperity to any community.

Prospective Tests

AT this writing, the Thorp Drilling Co. of Shreveport, La., is moving in tools and equipment to drill four tests north of the Brewton well. There are two rigs up now. The Thorp Drilling Co. is a competent, well qualified concern, and the results from this work will be watched with interest by the oil fraternity. Nothing finer could have happened in Florida than the finding of this little oil by Mr. Brewton and he is to be complimented for his courage as a pioneer. I hope when the well is completed it will turn out to be a real producer, as it took a real oil man's courage to locate and drill a well out in the Everglades. Only the owners know the hardships and disappointments which have been endured, to say nothing of the expense involved.

"The public should leave the oil business alone. Leave it to the oil companies. Do not invest with every Tom, Dick and Harry because he has a lease, a blue print, or the lingo of the oil field. Investigate to learn if he is a practical oil man with a knowledge of the oil business. Every practical oil man has references just as sound as those of a bank.

"The oil companies will know in the near future how much oil there is in Florida and they will find out by drilling holes in the ground. Don't view a drilling operation by practical men as a silly attempt, as it is just as intelligent as the grafting of different species together in horticultural experiments. It at least brings forth information and facts, although unfortunately it is very expensive.

"There are places in Florida which I have investigated which, in my opinion, are worthy of a test for oil, because I have seen much oil produced under similar circumstances in the present oil states and by the same token have seen it missed many times.

"In conclusion I have this to say: Thanks to R. J. Brewton, there has been a hole 'worried down' in Glades county, Florida, which taps an oil-bearing stratum with some oil in it, and if the well itself never amounts to a financial success, it is nevertheless valuable in information and indicative of an oil accumulation. It may be on the edge of a pool. In the oil country this well would be considered an edge well, so determined from its stratum, the grade of oil and its condition."

California Standard Reports Profits Again Cut by Over-Production

By Roger B. Stafford
N. P. N. STAFF WRITER

CLEVELAND, April 17

EXPANSION of operations in all branches and increased earnings went hand in hand last year for the Standard Oil Co. of California. The company's production averaged almost 20,000 barrels more per day than in 1924, daily throughput at refineries was almost 30,000 barrels more than in 1924 and sales as reflected in net earnings increased $3,400,000 to $47,779,878.

Earnings would have been larger, President K. R. Kingsbury indicated in a letter to stockholders, but for the continued over-production of crude. Outside of over-production, business conditions on the Pacific coast were good last year and the volume of sales the largest in the company's history.

The company's net profits after depreciation, depletion, interest and estimated federal income taxes amounted to $30,953,485, an increase of $4,351,971 or 16.36 per cent over 1924. The 1925 net was equivalent to $3.25 per $25 share on the stock outstanding Dec. 31, compared with $2.82 a share in 1924. On the combined capital stock, book surplus and bonded indebtedness the 1925 profits were only 8.77 per cent.

Mr. Kingsbury's Report

Concerning this year's operations, Mr. Kingsbury reported:

"Production of crude oil during 1925 from the company's wells was 35,652,982 barrels, an average of 97,679 barrels daily, as compared with a production in 1924 of 28,677,249 barrels, or 78,353 barrels daily. The company's production as of Dec. 31, 1925, was 98,544 barrels daily.

"On Jan. 1, 1925, the company had 1100 barrels per day of production shut in. On Dec. 31, the company's shut in production amounted to 24,138 barrels per day. It is estimated that the total shut-in production in the state was 25,960 barrels per day on Jan., 1925, and 63,540 barrels per day on Dec. 31.

"The company completed during the year 150 producing wells, and 24 wells were abandoned as dry holes. On Dec. 31, 51 strings of tools were in operation, 29 employed in drilling new wells.

"Total crude oil runs for 1925 amounted to an average of 194,991 barrels daily, a decrease of 8092 barrels daily from 1924. Of this amount, 32,200,513 barrels, or 88,221 barrels daily, were purchased from 301 different producers' leases.

Increased Runs to Stills

"Average daily runs of crude oil to the stills at the refineries were 173,798 barrels, as against 144,075 barrels in 1924.

Standard of California Consolidated Income Accounts

	1925	1924	1923	1922	1921
Net earnings	$ 47,779,878	$ 44,354,798	$ 38,330,936	$ 42,822,825	$ 50,530,409
Deprec., depletion	13,388,476	13,535,368	11,756,830	12,853,012	14,192,396
Interest	1,072,917	1,197,916	1,541,667	1,750,000	1,670,782
Federal taxes	2,365,000	3,020,000	590,000	1,200,000	1,079,000
Net profit	$ 30,953,485	$ 26,601,514	$ 24,442,439	$ 27,019,813	$ 33,588,231
Dividends	18,927,028	18,720,029	18,016,273	16,285,659	15,499,546
Earned Surplus	$ 12,026,457	$ 7,881,485	$ 6,426,166	$ 10,734,154	$ 18,088,685

Standard of California Consolidated Balance Sheets as of Dec. 31

ASSETS

	1925	1924	1923	1922	1921
Plant	$219,623,318	$211,640,353	$209,534,978	$200,910,580	$180,895,118
Securities*	29,816,134	29,506,227	33,246,077	22,812,679	19,370,738
Inventories	84,392,320	71,193,533	62,898,360	58,071,383	54,288,539
Notes, accts. rec	21,709,295	2,153,951	2,359,065	1,709,060	2,415,555
Cash	14,827,199	20,228,994	21,437,800	18,686,606	15,436,173
Deferred charges	3,354,361	18,081,814	12,508,315	3,767,546	4,327,003
Total	$373,722,627	$352,804,872	$341,984,595	$305,957,854	$276,733,126

LIABILITIES

	1925	1924	1923	1922	1921
Capital stock	$237,910,850	$235,228,447	$232,704,321	$204,787,272	$100,971,111
Gold debentures	20,000,000	22,500,000	25,000,000	25,000,000	25,000,000
Accounts payable	8,518,810	9,074,480	10,245,295	7,501,030	5,807,434
Federal tax res	8,015,987	8,670,987	6,240,986	6,850,986	6,729,986
Accrued interest	416,667	468,750	520,833	729,167	729,167
Insurance reserve	1,891,394	1,539,869	960,207	535,831	170,313
Merchandise due	140,239	233,317	867,608	1,467,906	923,226
Suspended earnings	1,722,355	1,722,355	1,722,355	1,722,355	1,722,355
P. & L. Surplus	95,106,325	73,366,667	63,722,990	57,363,307	134,679,534
Total	$373,722,627	$352,804,872	$341,984,595	$305,957,854	$276,733,126

*At cost, less than market value.

"Three fuel oil reservoirs, each with a capacity of 3,100,000 barrels, were completed. These are the largest oil reservoirs of this type in the world.

"A total of 720 storage distributing stations and 731 automobile service stations were being operated on Dec. 31.

"The company's fleet transported 43,246,078 barrels, against 36,384,944 barrels in 1924. The S. S. Montrolite, 85,550-barrel capacity, was purchased and renamed J. C. Fitzsimmons in honor of the company's former general sales manager. The S. S. Atlas was sold.

"At the end of the year the company was operating 4535 pieces of motor equipment, an increase of 767 during the year.

MR. KINGSBURY reveals for the first time the amount of the Standard's holdings in the Pacific Oil Co. with which it merged Jan. 1. These holdings totaled 414,000 shares of Pacific and in the consolidation the Standard received 165,600 shares of Associated Oil Co stock which was sold at $58.50 a share to a syndicate of eastern bankers, managed by Blair & Co. and the Chase Securities Corp. The block formed the nucleus of the consolidation of the Tide Water Oil Co. and the Associated Oil Co. a few weeks ago. He also said:

"The daily production of the Pacific Oil Co's. properties so consolidated was 58,700 barrels as of Jan. 1, 1926, 3700 barrels of which were shut in. Included in these properties there are over 261,000 acres of land in California owned in fee, 20,000 of which are proven oil lands, and geological conditions indicating that a material part of the balance of this acreage is prospective oil land.

"The net earnings for 1925 of the properties of the Pacific Oil Co. acquired by the Standard Oil Co. of California, after deduction for federal taxes, are estimated at $12,800,000.

"As a stockholder of the Pacific Oil Co. the Standard Oil Co. of California will be entitled to receive 414,000 shares of its own stock. The directors of the Standard Oil Co. of California have decided that these 414,000 shares will not be issued. The outstanding issued capital, therefore, of the Standard Oil Co. of California will be 12,602,434 shares. The average cost of the 414,000 shares was $37.58 per share at which price it was always carried on the books.

New Financing Unnecessary

THE $20,000,000 of 5% serial gold notes outstanding at the time of the consolidation must, under the terms of the deed of trust, be called for redemption on Aug. 1, 1926, at the premiums provided for in the deed of the trust. It is anticipated that the cash requirements of this transaction will be taken care of without any new financing.

(Continued on page 40)

Derrick Bases and Heights Question For Standardization Group

DALLAS, April 15

THE question of definitely deciding upon derrick bases and heights is one of the few problems remaining for disposition by the standard rigs and derricks committee of the American Petroleum Institute standardization group.

Once this subject has been disposed of by the committee, of which Walter W. Fondren of Houston is national chairman, its recommendations will be ready for the board of directors of the Institute. When accepted by the board of directors the recommendations become definite American Petroleum Institute standards.

Virtually all other major questions involving standard rigs and derricks had been acted upon when the committee finished its sittings in Los Angeles last January, at the time of the Institute meeting. The question of derrick bases and heights, however, went over until the Colorado Springs conference in consideration of a request made by the California district sub-committee.

That committee was unanimous in its belief that one derrick with a fixed top opening and standard tapered legs would suit the needs of the industry and be more economical to both the manufacturer and the producer than the individual derricks, with specific bases and heights now in general use.

The question of marking or labeling A. P. I. derricks, which was not acted on by Mr. Fondren's committee at Los Angeles, probably will come up for discussion also at Colorado Springs.

A detailed progress report of Mr. Fondren's committee has just been issued through the Dallas office of Carl A. Young, standardization director of the Institute, reading in part as follows:

"The standard rig and derrick committee decided upon what measurements of the derrick and standard rig should be standardized on, and how these measurements should be taken. It was decided that the base measurements should be at the derrick foundation and be the distance between the neutral axis of the derrick legs; and that the height be the distance between the top of the derrick floor and the top of the water table measured along the derrick leg; and that the opening in the water table be the in-the-clear measurement.

"The matter of definitely deciding upon derrick bases and heights was tabled until the next semi-annual meeting of the standardization committee, in consideration of the request made by the California district sub-committee. That committee was unanimous in its belief that one derrick with a fixed top opening and standard tapered legs would suit the needs of the industry and be more economical to both the manufacturer and the producer than the individual derricks, with specific bases and heights now in general use.

"The committee concluded its arguments on the water table opening, and decided to recommend 5 ft. 6 in. in the clear for all derricks over 74 ft. in height, and 4 ft. 6 in. for all derricks 74 ft. or less in height. The 5 ft. 6 in. opening was finally decided upon after considering the recommendations of the wire line and manila cordage committee, who recommended that the opening be made as large as possible in order to accommodate as large crown block sheaves as possible, which, in turn, would reduce the wear on the wire lines.

"The matter of determining the strength of derricks was referred to the steel derrick manufacturers sub-committee for recommendations on a common method of computing the strength, same to be submitted to the engineering sub-committee, who in turn, with their recommendations will report to this committee at its semi-annual meeting. It was brought out that this matter would take considerable time on the part of the derrick manufacturers and engineers.

"The matter of determining standard foundation bolts with locations where derricks are placed on concrete foundations was referred to a joint committee of derrick manufacturers and engineers with the understanding that this joint committee would be ready to report their findings and recommendations at the semi-annual meeting of this standardization committee.

"The committee was able to conclude its arguments and recommend for adoption practically all of the standard rig parts. Without going into all of the arguments for and against which terminated in the recommendations made, I will give you the results only of this committee's works:

"The distance between the derrick floor and the bull wheel girt, which means the distance in the clear, 9 ft. 6 in. without tolerance.

"For sampson post heights instead of specifying the actual lengths of the sampson post, the committee recommended in order to take care of all kinds of construction that the sampson post be of sufficient height to give a distance of either 15 ft. or 18 ft. from the top of the derrick floor to the top of the walking beam measured when the walking beam is in a horizontal position. A tolerance of 3 in. plus or minus allowed.

"The working points or distances between center of sampson post and center of well 12 ft. 6 in. or 11 ft. 6 in. without tolerance.

"The committee decided that in specifying walking beam lengths that instead of specifying the over all length, that the walking beam should be of sufficient length to give working points of 12 ft. 6 in. and 11 ft. 6 in., without tolerance.

"The diameter of bull wheels was decided at 8 ft. without tolerance.

"The diameter of bull wheel shafts was decided at 13 ft., 16 ft. or 18 ft. without reference to material.

"The length of the bull wheel shaft measured from shoulder to shoulder of gudgeons 13 ft. 6 in. without tolerance.

"7 ft. 6 in. was decided as the calf wheel diameter without tolerance.

"The diameter of the calf wheel shaft was not decided upon, but tabled pending recommendation from the A. P. I. wire line and manila cordage standardization committee.

(Recommendations from the wire line and manila cordage committee have since been received and are that the calf wheel diameters be as large as possible, in order to reduce wear on wire lines.)

"The length of the calf wheel shaft was decided at 6 ft. 3 in. without tolerance.

"An additional specification was introduced and adopted governing the gin pole height, which the gin pole and the clearance between the gin pole and the base of the crown block be 8 ft. minimum.

"For the face of the band wheel 14 in., 16 in. or 18 in. with a tolerance of ½ in. plus or minus was adopted for recommendation.

"A diameter for the band wheel of 11 ft. with a 1 in. minus tolerance was adopted.

"The diameter of the band wheel tug rim was recommended to be 7 ft. without tolerance.

WORK of the various sub-committees on oil field standardization of the American Petroleum Institute since the annual meeting of the institute in Los Angeles in January has resulted already in several new progress reports, which will be brought up for discussion at the meeting of all standardization committees in Colorado Springs, June 15, 16 and 17.

Recognizing the importance of this work of standardizing oil field equipment to all companies and operators in the field, National Petroleum News will publish these current reports, or at least summaries of them during the next few weeks, in order that the producing industry generally may have an opportunity to study the suggestions that will be brought up at Colorado Springs.

In this issue is published that report dealing with new features in standardization of oil field derricks.

Completions in North Louisiana and Arkansas, Week Ended April 15

LOUISIANA

Urania—LaSalle Parish

Company	Well	Location	Depth	Yield
J. S. Abercrombie & Co.	M. M. King No. 3	25–10–1E	1510	250
J. S. Abercrombie & Co.	M. M. King No. 5	25–10–1E	1547	300
B. & B. Drilling Co.	Urania No. 1	7–10–2E	1515	500
Explorers Oil Corp.	Keith No. 1	36–10–1E	1530	35
Galloway et al	Pendarvis No. 3	24–10–1E	1525	30
Louisiana Oil Ref. Corp.	Tremont A-4	28–10–2E	1657	Dry
Nat. Gas & Fuel Corp.	H. Tullos No. 3	26–10–1E	1495	20
L. E. Ousley	Fee No. 1	26–10–1E	1550	50
Rowe et al	Urania No. 1	5–10–2E	1718	s.w
Sherman et al	Russell No. 1	25–10–1E	1535	100
O. F. Whittaker et al	King No. 2	36–10–1E	1534	50

Caddo Parish—Caddo District

Gulf Refining Co.	C. W. Lane No. 17	13–21–15	3674	30&10m.gas
Mrs. N. M. Hancock	Hampton No. 2	15–21–15	1748	15
Texas Oil Co.	Noel B-12	14–21–15	1681	10

Cotton Valley—Webster Parish

Arkansas Nat. Gas Co.	Miller No. 1	30–23– 9	2715	10m. gas

Bellevue—Bossier Parish

G. W. Weatherbee	Smith No. 1	23–19–11	390	2m. gas

Waskom—Harrison County, Texas

State Line O. & G. Co.	Mrs.Z.Agney No.1	W.R.Anderson HRS	1910	20m. gas
Waterman Drlg. & Dev. Co.	Hickman No.3	E. Pollock HRS	1941	6m. gas

Panola County

Magnolia Pet. Co.	John Jergan No1	Jas.Thorpe HRS	1025	5m. gas
Magnolia Pet. Co.	John Lewis No.1	B.C.Jordan HRS	2750	s.w.

Shelby County

Roy Anderson et al	Pickering Lbr.Co.No.1	W.J.Crane HRS	2666	Dry

ARKANSAS

Nevada County

Company	Well	Location	Depth	Yield
Humble O. & R. Co.	Ellis No. 2	2–14–21	1162	150
Humble O. & R. Co.	Graves A-4	2–14–21	1151	500

Stephens

Equity Oil & Dev. Co.	Morgan No. 1	27–15–19	2175	15
Reynolds et al	Thompson No. 1	22–15–19	1475	100

Lisbon

Atlantic O. & P. Co.	Andress No. 3	16–17–16	2145	35
Coates & Lowell	Dumas No. 1	10–17–16	2098	25
Lion O. & R. Co.	Goodwin No. 4	16–17–16	2120	160
Marine Oil Co.	Slaughter No. 3	9–17–16	2141	150
Nat. Gas & Fuel Corp.	Andress No. 3	16–17–16	2127	130
Nat. Gas & Fuel Corp.	Andress No. 4	16–17–16	2150	125
Oil Fields Corp.	Dumas No. 1	10–17–16	2100	30
Atlantic O. & P. Co.	Slaughter No. 3	9–17–16	2107	600
Owens et al	Slaughter No. 1	4–17–16	2130	200
J. D. Reynolds	Dumas No. 3	15–17–16	2105	20
Rovenger Oil Corp.	Dumas No. 5	9–17–16	2135	50
Simms Oil Co.	Dumas No. 2	9–17–16	2103	15&4m gas
Wingfield et al	Dumas A-2	9–17–16	2100	350
Wingfield et al	Slaughter No. 5	9–17–16	2093	200
T. J. Woodley	Dumas No. 1	9–17–16	2115	125

Smackover

Meek, trustee	La Grone No. 3	36–15–17	2295	50
Inter-Ocean Oil Co.	Johnette No. 2	33–15–16	2257	20
Simms Oil Co.	Reynolds No. 9	32–15–15	2590	50
Southern Oil Purch. Co.	Joyce No. 6	34–15–15	2641	30m. gas
Standard Oil Co. of La.	Umstead No. 23	32–15–15	2660	35m. gas
Sunny Jim Oil Co.	F.A. & B.T.Laney No.3	36–15–16	2011	25
Estes et al	Murphy No. 2	15–16–15	2615	125
E. M. Jones	Murphy No. 4	17–16–15	2690	40
Murdock et al	Vestal No. 2	17–16–15	2533	150
Nat. Gas & Fuel Corp.	Flenniken No. 2	8–16–15	2495	s.w.
Pure Oil Co.	Bilyew No. 6	8–16–15	2383	125

Completions in North and Central Texas, Week Ended April 17

Archer County

Company	Well Farm	Location Survey	Depth	Initial Prod.
Waite Phillips	15-Wilson	Howard	1699–1702	100
Waite Phillips	16-Wilson	Howard	1709–1710	12
Levi	1-Thompson	ATNC	1389–1393	45
Burns	2-Jackson	Aldridge	1562–1564	65
Gulf	4-Jackson	Aldridge	1560–1561	130
Gulf	5-Jackson	Aldridge	1554–1558	100
Pandem	1-Thomas	Thomas	1432–1442	60
Cosden	4-Oldham	Hubble	1343–1386	700
Humble	2-Wolfe	SP	1338–1357	300
Pioneer et al	2-Wolfe	SP	1375–1384	8
Texhoma	14-Oldham	Hubble	1340–1375	382
Texhoma	3-Wolfe	SP	1339–1361	95
Roxana	3-Cockrell	TEL	1442–1449	22
Roxana	4-Kreeger	TEL	1440–1443	15
American	8-Portwood	TEL	1389–1399	5
Magnolia	10-Portwood	TEL	1403–1420	25
Barnsdall	2-Lowe	TEL	1201–1207	12
Roxana	1-Mankins	TS	T.D.1838	Dry
Lomax et al	1-Wilson	ATNC	T.D.1601	Dry
Gulf	4-Hutchinson	ATNC	T.D.1396	Dry
Decker et al	1-Peeler	Harris	T.D.1701	Dry
Creath-Medders	1-Turberville	Harris	T.D.1503	Dry
Camp	2-Bell	CP	T.D.1150	Dry
Golding-Cochran	1-Herron	CP	T.D.1618	Dry
Cosden-Consolidated	2-Oldham	Hubble	T.D.1385	Dry
Cosden-Consolidated	3-Oldham	Hubble	T.D.1383	Dry
Roxana	2-Cockrell	TEL	T.D.1507	Dry
Wampum	5-Kreeger	TEL	T.D.2434	Dry
Craig-Wilson	1-Isham	Gholson	T.D.1003	Dry

Brown County

Landreth	1-Prater	Swain	T.D.1335	Dry
Barclay et al	3-Dunn	Delgado	1101–1124	60
Barclay et al	5-Dunn	Delgado	1101–1132	1200
Humble	5-Dunn	Delgado	1115–1132	240
Humble	2-Stover	Delgado	1100–1112	2M
States	3-Allen	Delgado	1094–1118	40, 4M
Moorman	1-Byrd	Mitchell	1307–1322	250
Cosden	7-Westerman	Mitchell	1282–1304	100
Hughes	3-Arlege	Mitchell	1280–1928	90
Texas	2-Dunn	Delgado	1120–1145	600
Texas	4-Dunn	Delgado	1119–1141	800
Conway	5-Pickett	Logan	1278–1298	140
McLester	3-Wooldridge	ETR	1215–1225	75

Carson County—Panhandle

Cosden	1-Burnett	I&GN	2769–2820	32M
Barnes	1-Burnett	I&GN	T.D.1150	Dry

Callahan County

Weiler	1-Cent. Addn	Anderson	1445–1457	15
Stone-Neeb	1-Cent. Addn	Knight	T.D.1457	Dry

Coleman County

Mid-West	1-Dibrell	Hicks	1901–1942	220
Monroe	1-Hutchings	GH&H	944– 956	3M
Bevans et al	1-Stacy	B&S	945– 949	40
Magnolia	15-Morris	Breeding	T.D.3497	Dry
Canyon	1-Parsons	Hicks	T.D.1951	Dry

Cooke County

James	1-Hamilton	Fannin	T.D.2225	Dry

Eastland County

Company	Well Farm	Location Survey	Depth	Initial Prod.
Panhandle	2-Wright	McClellan	T.D.1690	Dry
Knox-Lewis	1-Wright	Tyler	T.D.2937	Dry
Lightfoot et al	3-Allen	Price	T.D.3040	Dry

Hutshinson County—Panhandle

Gulf	1-Whittenburg	M Whitley	2867–2942	175
Sunny Jim	1-Whittenburg	M & C	2947–3000	600
Newby	1-Cockrell	M & C	2971–3025	90

King County

Cal. Co.	1-Masterson	SL	T.D.3520	Dry

Loving County

Rio Grande	1-Kyle	T&P	T.D.3500	Dry

Mitchell County

Atlantic	3-Womack	TP	2925–3092	100
Atlantic	4-Womack	TP	2937–3076	95
Cal. Co.	3-Womack	TP	2895–3085	105

Montague County

Humphreys	2-Howard	Chambliss	1356–1360	40
Benton-Woods	5-Hynds	Wall	888– 901	125
Gulf	3-Cunningham	Hodges	980– 986	120

Potter County—Panhandle

Amarillo	4-Bivens	D&F	T.D.2895	4½M

Reagan County

Big Lake	51-Univ.	Univ.	2797–2786	3468

Shackelford County

Roeser-Pendleton	1-Cook	ETRR	1293–1303	443
Milham	1-Simpson	BAL	T.D.1609	Dry
Milham	1-Spell	BAL	T.D. 980	Dry
Heck et al	1-Reynolds	TP	T.D.1390	Dry
Jackson et al	1-Hadley	TP	T.D. 925	Dry

Stephens County

Quakins	12-Harmon	TP	2045–2095	15

Wichita County

Gulf	2-Waggoner	Williams	570– 584	20
Humble	2-Waggoner	GH&H	580– 588	18
Texhoma-Hammond	1-Waggoner	George	1499–1504	37
Simms	1-Dutton	Denton	1815–1816	37
Meyers et al	1-Sheldon	H&GN	T.D.2004	Dry
Bridwell-Heydrick	2-Waggoner	George	T.D.1558	Dry
Maer-Stanforth	1-Crudup	Denton	T.D.1860	Dry
Stump et al	1-Chilson	Denton	T.D.1840	Dry

Wilbarger County

Independent	1-Waggoner	H&TC	T.D.2915	Dry
Phillips	1-Waggoner	H&TC	T.D.2626	30
Phillips	5-Waggoner	H&TC	1898–1905	70
Milham	5-Waggoner	H&TC	2535–2946	75
Humble	3-Waggoner	H&TC	2288–2324	60

Young County

Bridwell-Heydrick	3-Farmer	Anderson	1051–1074	150
Carter	6-Benson	TEL	919– 933	50
Gulf	6-Campbell	TEL	902– 912	132
Bashara et al	3-Marshall	TEL	2838–2846	40
Pitzer-West	1-Burgess	Smith	T.D.2136	Dry
Gulf	1-Hanna	TEL	T.D.1350	Dry
Reid-Anderson	2-Lehrman	TEL	T.D.1012	Dry

Double Swing Joint

Type 30

Tank Truck Faucet

Single Swing Joint

Type A

Tank Truck Faucet

Type B

Tank Truck Faucet

They're Money-Savers
—*every one*

Here are a few Wheaton Products —money savers, every one. That's what users of Wheaton Faucets, Valves, Nozzles, Joints, etc., have learned about these and every other article bearing the name Wheaton. And the reason is simple—it's the *quality* that is built into them. Ask any man who is qualified by knowledge of equipment and he will tell you that Wheaton Products are known throughout the entire oil industry as the *Quality Products* of their field. And, if their first cost is higher than that of other makes—which is seldom the case —Wheaton Products make up the difference many, many times by their long life of economical service. Send for catalog today.

A. W. WHEATON BRASS WORKS, NEWARK, N. J.

Type 26

Loading Valve

Type 25

Loading Valve

Type 24

Tank Truck Faucet

Type 35 Non-Drip

Lubricating Faucet

Wheaton

Completions in Oklahoma and Kansas, Week Ended April 17

OKLAHOMA

Carter County

Company	Well No.	Location	Depth	Initial Production
Amerada	22	C SW NW SE 20-5-1E	1773–1795	20

Comanche County

Company	Well No.	Location	Depth	Initial Production
Day	1	SEc NE 28-3-9W	T.D.2885	Dry

Creek County

Company	Well No.	Location	Depth	Initial Production
Devonian	2	CEL SE NE 14-19-8	2365–2426	350
Transcontinental	3	NEc SE SW 14-17-8	2270–2201	20
Roxana	1	NWc SE SW 18-17-8	2257–2582	35
Phillips	2	SWc SE 30-15-8	2590–2615	5
McMahon	1	NWc 10-19-9	2726–2735	15
Wells et al	1	NWc 10-18-11	1685–1705	15
Sunray et al	1	NWc SE NW 6-18-12E	2154–2163	1500
Sunray et al	2	CWL SE NW 6-18-12	2139–2149	2200
Kirshner	1	SWc NE SE 23-17-10E	2491–2521	310
Wright	9	CEL NE SW 24-17-10E	1825–1875	45
Henry et al	2	C SE SW 5-16-12	2053–2068	2M
Tibbens	23	SWc NE 30-15-9	3051–3059	720
Tibbens	26	SWc NW NE SW 30-15-9	2257–2285	15
Mid-Cont. et al	4	SEc SW NW 32-14-10	3434–3444	150
Grieves	2	SEc SW 12-19-8E	T.D.2924	Dry
Chronic et al	1	C SE SW SW 14-18-8E	T.D.3320	Dry
Transcontinental	1	SEc SW 31-14-9	3830	Dry

Garfield County—Garber

Company	Well No.	Location	Depth	Initial Production
Mid-Cont Marland	40	NEc SE 13-22-4W	2339–2501 OWD	288
Sinclair	30	C NE NE NE 13-22-4W	4210–4241	6608
Sinclair	34	C SW NW NE 13-22-4W	4120–4367	3220
Sinclair	34	C NW NW NE 13-22-4W	4412–4421	535
Sinclair	25	CEL NW 19-22-3W	1375–1383	25
Sinclair	10	SEc NW 31-22-3	2159–2169	15
Imo	6	NWc SW NW SW 31-22-3	2217–2238	35
Enid	4	NW SE NW 1-22-4	T.D.1573	Dry
Magnolia	3	C NE NE NE 15-22-4	T.D.4580	Dry
Knox	6	SWc SE 7-22-3W	T.D.4511	Dry
Crews Heirs	18	NWc SE SW 19-22-3	T.D.4532	Dry

Grady County

Company	Well No.	Location	Depth	Initial Production
Okla. Natl	3	C NE SW NW 23-5-8W	2090–2390	42M
Magnolia	5	C SW NE 35-5-8W	2055–2233	12M

Hughes County

Company	Well No.	Location	Depth	Initial Production
Amerada	1	NWc NE NW 5-7-8E	4134–4139	2552
Sands	1	NEc NW 31-9-10	T.D.3490	Dry

Jefferson County—Seay

Company	Well No.	Location	Depth	Initial Production
Pure	1	SWc SE 28-6-5W	T.D.1780	Dry
Gypsy	19	NWc NE SE NW 33-6-5W	1278–1367	125

Kay County

Company	Well No.	Location	Depth	Initial Production
Marland	1	NEc 13-29-2W	3871–3873	252

Kay County—N. Braman

Company	Well No.	Location	Depth	Initial Production
Comar	6	SWc NE SW 21-29-1W	2337–2373	40

Lincoln County—Davenport

Company	Well No.	Location	Depth	Initial Production
Magnolia	4	NWc SW SW 3-14-5E	3440–3453	213
Pure	1	NEc SE SE 4-14-5	3452–3467	207
Magnolia	1	NWc SE 10-14-5	3476–3490	100
Gypsy	11	NEc SW NW 11-14-5	3341–3377	300
Southwestern	3	NEc NW NE 11-14-5	3401–3440	322
Prairie	19	SEc SW SW NW 3-14-5	2647–2653	100

Lincoln County

Company	Well No.	Location	Depth	Initial Production
Independent	1	NWc SW NE 33-17-6	T.D.4001	Dry

Okfuskee County

Company	Well No.	Location	Depth	Initial Production
Barnsdall	1	SEc SW SE 3-12-11E	2606–2616	444
Amerada	12	SEc NE NW 13-12-11E	3364–3371	68
Indep-Anglo-Tex	7	SWc NW NE 13-12-11E	3334–3368	30

Okmulgee County

Company	Well No.	Location	Depth	Initial Production
Simmons et al	1	NWc NE 21-14-11	2931–2949 OWD	40
Buckies	15	SWc NE NW 5-11-12E	1577–1607	3
Iron Mountain	15	CWL E½ NE SW 24-13-14E	T.D.1973	Dry

Osage County—Burbank

Company	Well No.	Location	Depth	Initial Production
Phillips	14	NEc NW SE 2-27-5E	2907–2945	600

Osage County

Company	Well No.	Location	Depth	Initial Production
Beacon	13	C SE 27-29-11	1000–1026	5
Tidal	4	SWc NE SW SW 24-24-8E	2145–2200	12
Tidal-Osage	2	NEc NE SE 20-24-9E	2202–2271	50
Peters	4	NEc SE SW 28-24-10	1379–1394	15
Winona	19	SW NW SE 28-24-10	1367–1383	15
Ross et al	12	CNL NW SE SW 25-23-10	1682–1718	15
Elm	13	NEc SW NE NE 23-22-10	1718–1748	30
Mason-Carter	7	NEc SW NW NE 23-21-8	2190–2230	20
Tidal	23	C SW SE 19-21-12	2082–2103	5
Continental	14	SWc SE NW NW 28-20-12	2021–2051	90
Barnsdall	20	NW NW NE 30-21-12	T.D.2263	Dry

Pawnee County

Company	Well No.	Location	Depth	Initial Production
Mid-Kansas	2	SEc NW NW 4-23-5E	3546–3549	140
Rich et al	1	NWc SW 3-22-5E	3815	Dry
Josey	1	SWc NW NW 22-20-6	3093–3101 OWD	45
Magnolia	2	C SE SE NE 5-22-3	4104–4115	10

Payne County—Mehan

Company	Well No.	Location	Depth	Initial Production
Deep Rock	5	NEc SW SE 23-18-3E	4175–4241	1550&35M
Mulberry	1	NEc NW NE 6-17-4	3549–3587	15M

Pittsburg County

Company	Well No.	Location	Depth	Initial Production
Richards	1	C NE 29-6N-13E	T.D.1350	Dry

Seminole County

Company	Well No.	Location	Depth	Initial Production
Carter et al	4	C NE NW NW 33-11-8E	3407–3422	45
Prairie	1	SEc NE NE 15-8-7E	T.D.3530	Dry

Stephens County

Company	Well No.	Location	Depth	Initial Production
Flowers et al	1	NEc 25-2-9W	T.D.2519	Dry
Dresser et al	3	NWc SW SW SE 2-1-5W	T.D.1262	Dry
Gant et al	1	C NE NE NW 8-2-6W	T.D.3557 OWD	Dry

Tulsa County

Company	Well No.	Location	Depth	Initial Production
Holmes et al	2	CEL SE SW 15-19-10E	2342–2348	10
Vance	17	CEL NE NW 3-18-12	1973–1986 OWD	2M
Selby	7	CNL NW SE 4-16-13	2165–2170	1
McCullough	7	CSL NE NE 34-19-11	2325	Dry
Cates et al	3	CWL SW NW NE 13-18-12	T.D.1050	Dry
Frates	3	CNL S½ NE SW 1-17-14	T.D.1301	Dry

Wagoner County

Company	Well No.	Location	Depth	Initial Production
Green	1	SWc NE SE 13-19-16	490– 505	.1M
Deems	4	NWc SW SE 31-18-15	1232–1247	1M
Larsarskey et al	4	NEc SE NE 25-17-16	1282–1302	15
Hornacker et al	1	SWc NW SE 29-18-16	T.D. 816	Dry
Perry-Hartman	1	NEc NW 29-17-16	1110	Dry
Sloman et al	1	SEc 19-17-17	T.D.1303	Dry

KANSAS

Butler County

Company	Well No.	Location	Depth	Initial Production
Magnolia	3	NWc SW SW 25-27-4E	1998–2013	25
Phillips	3	NEc NW SW 27-27-7E	2707–2740	400
Phillips	6	SEc SW SW 27-27-7	2762–2767	25
Phillips	1	SEc SW SE 28-27-7	2706–2734	40
Federal	3	NWc NE NE 33-27-7	2695–2745	200
Roth	8	SEc 33-29-8	2120–2154	25
Preston et al	1	NEc NW 32-18-7	1930–1940	3M

Chautauqua County

Company	Well No.	Location	Depth	Initial Production
Griffith et al	1	NEc NW NW 1-32-10	1969–1986	1½M

Chase County

Company	Well No.	Location	Depth	Initial Production
Derby-Braden	1	NWc SW 24-20-9E	T.D.2500	Dry

Cowley County—Rainbow Bend

Company	Well No.	Location	Depth	Initial Production
W. Phillips-Marland	3	SWc NW SW 19-33-3	3190–3204	75
W. Phillips-Marland	2	NWc SE SW 21-33-3	3248–3291	175
W. Phillips-Marland	3	NWc NE SE 29-33-3	T.D.3350	Dry

Cowley County

Company	Well No.	Location	Depth	Initial Production
Pettet-Banks	1	NEc NW 32-30-5	T.D.2921	Dry
Benedum-Trees	3	SEc 6-30-8	T.D.2787	Dry

Elk County

Company	Well No.	Location	Depth	Initial Production
Neeley	1	SWc 21-31-10E	T.D.2465 OWD	Dry
Gillespie	1	NWc NE 7-31-11	T.D.2281	Dry
Denton	12	SEc NW SW 34-29-9	1494–1510	2M
Elk Pet	6	C NW SE 3-30-9	1062–1069	15
Pure	9	NWc SE NW SE 14-31-10	1352–1366	25
Theta	5	C E½ NE 27-31-10	1650–1654	45

Greenwood County

Company	Well No.	Location	Depth	Initial Production
Titus et al	9	SWc NE SW NW 29-22-10E	2400–2458	300
Empire	4	NWc NE SW 14-22-11	1876–1918	200
Empire	7	SEc NW NW 14-22-11	1864–1904	100
Manhattan	21	SEc SW NE 10-23-9	2343–2406	150
Crown Central	1	SWc NW NE 13-26-9	2064–2148	15
Beacon	1	NWc NE SE 23-26-9	2215–2242	60
Peerless et al	1	SWc SE 31-24-11	T.D.2019	Dry

Lyon County

Company	Well No.	Location	Depth	Initial Production
Sheedy et al	3	SWc SE 31-21-10	2234–2249	80
Gillespie et al	1	SEc NW SW 9-20-12	T.D.2017	Dry

Russell County

Company	Well No.	Location	Depth	Initial Production
Midwest	22	NWc SE NW 8-12-15W	2916–2997	215
Valerius	1	NWc SW 17-12-15	2996–3005	175

Sumner County

Company	Well No.	Location	Depth	Initial Production
Slick et al	1	SEc NE SE 24-32-2	3134–3157	20

Wilson County

Company	Well No.	Location	Depth	Initial Production
Prairie	16	NEc NW SW SE 32-30-16	T.D. 615	0.05M

Woodson County

Company	Well No.	Location	Depth	Initial Production
Marland et al	9	SWc NE SW 23-23-13	1680–1700	75

(Continued from page 36)

The balance sheet of Dec. 31 shows current assets of $150,744,948 and current liabilities including the estimated federal income taxes, of $17,091,703, leaving net working capital of $133,653,245.

The company added 11,781,263 barrels to its oil inventories during 1925 at a cost of $14,305,568. On Dec. 31 it had in storage 59,486,859 barrels of oils of all descriptions which were carried on the books for $76,585,097. Inventory of materials and supplies was carried at $7,807,223, an increase of $1,106,781 in 1925.

Net profits, rate per share for each year and book value of stock as of Dec. 31 each year since the dissolution of the old Standard of New Jersey, have been:

	Net Profits	Rate	Book Value
1925	$30,953,485	13.0%	†*834.95
1924	26,601,514	11.3%	†* 32.79
1923	24,442,439	10.4%	†* 31.84
1922	27,109,814	13.2%	†* 32.00
1921	33,588,231	33.2%	* 58.35
1920	41,655,254	41.9%	223.09
1919	31,062,768	31.2%	158.49
1918	17,605,304	23.6%	141.30
1917	18,649,624	18.7%	115.35
1916	17,695,304	23.6%	141.30
1915	9,529,946	19.8%	190.29
1914	10,058,338	20.2%	181.90
1913	10,911,481	24.0%	177.65
1912	7,106,156	15.8%	144.92

†After 100% stock dividend.
*On $25 par stock.

Eastern Refiners Propose Joint Campaign To Improve Plant Efficiency

By Paul Truesdell
N. P. N. Staff Writer

CAMBRIDGE SPRINGS, PA.

THE outstanding feature of the meeting of the National Petroleum Association held here April 15 and 16 was a proposal worked out by the department of manufacture of the association and laid before the membership, that the Pennsylvania refiners subscribe to a joint fund to permit the employment of H. S. Bell, refinery engineer, to survey the plants of the contributing members, find the weak spots and suggest remedies to improve the efficiency of operations and thereby reduce manufacturing costs.

The proposal was submitted to the membership by B. B. Stroud, McKean County Refining Co., Bradford, the trustee in charge of the department of manufacture and received with a great deal of interest. Mr. Stroud stated that it was necessary for the success of the plan that at least 20 member companies subscribe to the fund. Seventeen companies represented at the meeting promised their subscriptions right off the bat and it seemed certain that the remaining companies needed would be easily enlisted.

In order to insure permanence and effective administration, it is proposed to place the working out of the program of improvement under Fayette B. Dow, Washington counsel of the association, rather than under the trustee in charge of the department of manufacturing, because the incumbent of this trusteeship changes from year to year and the trustees are too much engrossed with the immediate affairs of their companies to give to the administration of the cooperative plan the attention needed to make it most successful.

The submission of the cooperative plan came after Mr. Bell and his associate, W. A. Ross, had presented enlightening papers on the possibilities of stopping waste of steam and on the generation of steam, respectively. Both of these papers are published on another page in this issue. Both Mr. Bell and Mr. Ross have done a good deal of work in the western Pennsylvania refineries and are thoroughly familiar with conditions prevailing in the plants.

It is proposed that the campaign shall begin with improvement of the members' boiler plants.

Plant Department Active

THE meeting opened Thursday morning, April 15, with O. P. Keeney, Tide Water Oil Co., New York, president of the association, in the chair. About 90 were registered for the meeting, all but a few representing Pennsylvania and West Virginia refining companies. Not only were the chief executives of these companies present, but in many cases they brought with them their chemists and plant superintendents to get the benefit of the papers and discussions.

N. P. N. Staff Photo

O. P. Keeney

A new and increasing interest in traffic matters was in evidence and there was a considerable number of traffic managers present. Willis Crane, traffic attorney of the association with headquarters in Washington, reported on the work done by the traffic department since the annual meeting at Atlantic City last fall.

He said the traffic department has been enlarged by the employment of H. E. Elkins, formerly with the Interstate Commerce Commission. Mr. Crane stated that groups have been organized comprising the traffic managers of companies in the Warren, Oil City and other Pennsylvania refining districts, which are working actively for the improvement of local conditions from a transportation standpoint.

Citing a number of individual cases where reparations and adjustments have been obtained from the railroads by the association traffic department, he stated that an effort is being carried on consistently to impress upon the railroads that on the justness of their rates depends in large measure the amount of oil traffic they carry. Too high rates on unfinished products, particularly, means that the refiners will readjust their manufacturing processes so that such products will not be shipped from one refinery to another and the loss will be the railroads'.

Three definite proposals have been put up to the railroads by the association, Mr. Crane said.

First, a proposal that the railroads allow special rates on products moving from one refinery to another for further processing.

Second, a proposal for a special export rate on goods moving from Pennsylvania refining points to seaboard for shipment overseas.

Third, a request for an arrangement for barreling of goods in transit.

Mr. Crane pointed out that the rates out of western Pennsylvania refining points have been increased in recent years out of proportion to the general freight rate increases the country over.

How to Measure Gasoline Situation

FOLLOWING Mr. Crane's talk, Dr. Joseph E. Pogue, consulting engineer, New York, read a paper on "The Gasoline Situation." Stating that the price is governed absolutely by the law of supply and demand, he proposed a simple method for measuring the situation. He showed a chart, published here-

N. P. N. Staff Photo

Fayette B. Dow

with, on the relation of price to stock of gasoline on hand.

For the price factor, the wholesale price f.o.b. Tulsa was taken. In computing stocks on hand, he said, it is necessary to take into account two factors, the seasonal swing and the growth of consumption. Everybody agrees that, at the present time, he said, stocks are too large and prices too low. The question is to determine how much too large are they, considering the constantly increasing demand for gasoline.

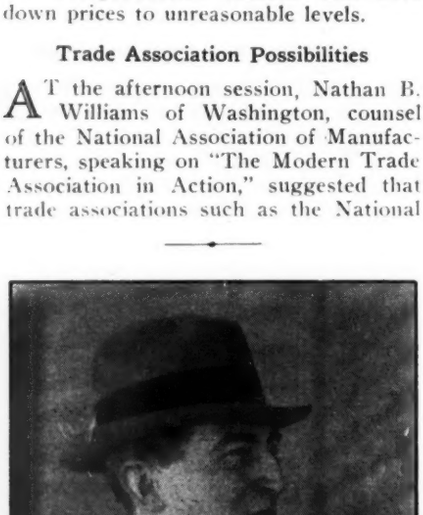
To find a basis for computing normal stocks, Dr. Pogue figured out the relationship existing between demand and stocks for the years 1918-1922 and found that, over that period, stocks represented 140 per cent of demand, or a 40 per cent surplus on hand. This figure, then, was taken as 100 per cent or normal stocks and a line plotted on the accompanying graph.

In months when the stocks are above the normal line as plotted, they are too large and below the line too small and the price at Tulsa shows quick sympathy with the condition of stocks. To show this, Dr. Pogue plotted the price at Tulsa by months against the stock line.

The chart shows fluctuations of stocks by months above and below normal and the corresponding fluctuations in price. Dr. Pogue stated that, if refiners would keep down their crude runs in line with the position of stocks and the probable increase in demand, they would avoid the overproduction seasons that hold down prices to unreasonable levels.

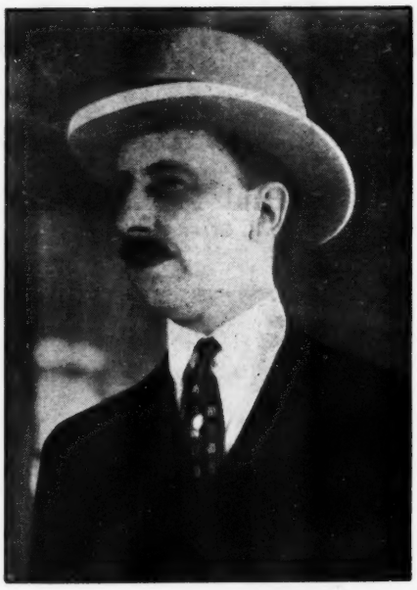
Trade Association Possibilities

AT the afternoon session, Nathan B. Williams of Washington, counsel of the National Association of Manufacturers, speaking on "The Modern Trade Association in Action," suggested that trade associations such as the National Petroleum Association are not taking full advantage of the latitude allowed them under the supreme court decisions in the lumber and cement cases, to guide their operations intelligently in the light of statistics. He urged the members to gather statistics on stocks, output and prices in closed transactions and follow their guidance in the conduct of their business.



N. P. N. Staff Photo

E. M. Lyons



—N. P. N. Staff Photo

Willis Crane

M. W. Mattison, in charge of accounting and tax matters for the American Petroleum Institute, explained the uniform accounting system that is being worked out by the committee, of which he is chairman, and which is composed of some of the leading accounting officers in the oil industry. Mr. Mattison offered the services of the committee in helping the refiners in their particular refinery accounting problems.

Following Mr. Mattison, P. S. Tarbox Independent Refining Co., Oil City, trustee in charge of the department of economics, accounting and statistics of the association, discussed the possibilities of applying accounting methods to the various refining processes and also the greater return that might be realized from the sale of products if the members kept charts on the state of the market from month to month, from the standpoint of demand and stocks on hand.

President Keeney appointed Mr. Tarbox chairman of a committee to work out with Mr. Mattison methods of applying correct accounting principles to the operations of the Pennsylvania refiners. The other members of the committee are to be named later. Mr. Tarbox's paper is published on another page in this issue.

Work of Fire Marshals

AT the evening session, April 15, Houston Dunn, managing director of the National Petroleum Mutual Fire Insurance Co., talked on the work of the fire marshals appointed by the members of the National Petroleum Association to make the work of inspection and correction of conditions increasing fire hazards a personal matter in their respective plants.

Mr. Dunn stated that, when he agreed to take on the responsibility of making the fire marshals' work a success, he expected that it would cover only a few of the Pennsylvania plants. He pointed out, however, that the movement now embraces 62 refining companies scattered over the country. This he said is valuable because it brings about the exchange of ideas among men whose plants operate under widely varying conditions, instead of confining the exchange to men all of whom operate under exactly similar conditions.

Mr. Dunn said that at a meeting in Pittsburgh in February the Association of Fire Marshals of the National Petroleum Association was regularly organized and the plan adopted of each fire marshal making a monthly inspection of his plant and sending in a report on conditions to Mr. Dunn. Mr. Dunn said he believed that in case of fire, three or four men trained to know exactly what to do are of more value than 25 or 30 untrained men and the marshals all went home to organize fire brigades in their plants.

Five reports were received by Mr. Dunn from fire marshals in February and seven in March, he said, and in the March reports many of the cases of bad housekeeping reported in February had been corrected. He stated that fire marshals are very much in earnest, but they can only accomplish good results if they are given the strong support of the executives of the companies.

Three fires were reported on by the marshals. In one case a tank of cylinder stock diluted with naphtha overflowed.

The stock ran along the ground until it reached a pile of live coals that had been thrown out of the boiler house and took fire. The fire was put out with little loss.

Two Rules Violated

It was pointed out in the report that this fire had been caused by the violation of two standing rules of the plant, one was that tanks must not be overflowed and the other that live coals must not be thrown on the ground in the yard.

The second fire was caused by a pressure still springing a leak while the still was under 75 pounds pressure. The fires were drawn and the blaze was put out with no loss to speak of. The third fire was caused by spontaneous combustion in a wooden locker in a locker room and was extinguished after the loss of the lockers and some of the interior woodwork. Mr. Dunn commented on the mistake of using wooden lockers around a refinery.

Mr. Dunn prefaced his talk with a brief discussion of the recent conflagration in California, stating that these fires have given the industry some very bad advertising and urging that the efforts

—N. P. N. Staff Photo

Fred Bannerot

of men responsible for fire protection be redoubled. He stated that records show more fires are caused by lightning in May than in July or August emphasizing that right now is a good time to give attention to leaky tank roofs and other conditions that encourage lightning stroke.

The problem of smoking in refineries, Mr. Dunn said, is one that is receiving considerable thought by members. Some hesitate to forbid smoking in every part of the plant because of the hardship it would work on the men. The less smoking the safer, in the opinion of Mr. Dunn but he suggested that if the men must be allowed to smoke, a special smoking room be provided which might be combined with a recreation and locker room.

At the Thursday afternoon session, Fred G. Clark, Fred G. Clark Co., trustee in charge of the department of standards and tests, stated that a new manual of test methods and standards of the association had been brought out. In this manual the association standards have been brought into line with the revised methods prescribed by the Federal Specifications Board and published in Technical Paper No. 323-A of the Bureau of Mines.

Mr. Clark told the members that one of the most important factors in making proper tests of products was keeping the laboratory equipment clean and in proper shape. He stated that it has been arranged for the eastern refiners to send their laboratory men, chemists and assistants to Washington to put in a day at the Bureau of Standards.

To Instruct Laboratory Testers

DR. DICKINSON of the bureau has stated he was willing to devote a day to showing the chemists just how to make the standard tests properly and he invited them to bring their stop watches for calibration, many disputes over quality arising from differences of stop watches and thermometers. The members received this proposal with favor and May 19 was named as the day for the chemists to spend at the bureau.

One of the members pointed out that the rejection of one car of goods by a buyer through improper testing at the refinery would more than pay the expenses of sending the man who makes the tests to Washington for a day. It was suggested at the meeting also that the men visiting the bureau should familiarize themselves with the engine for testing motor fuel for anti-knock quality.

The Fellowship supper of the association was held Thursday evening, following Houston Dunn's talk. An entertainment program was put on by talent from the association membership under the leadership of Fred G. Clark who was in charge of the entertainment.

One of the features of the program was a quartet composed of Fred G. Clark, "Bob" McCaslin, Fred G. Clark Co., K. M. Lyons of the Inland Petroleum Co., and L.C. Jamieson of the Viking Oil Co. They sang several numbers including a parody on "It Aint A-Goin to Rain No More," made up of good natured rubs on well known members of the association.

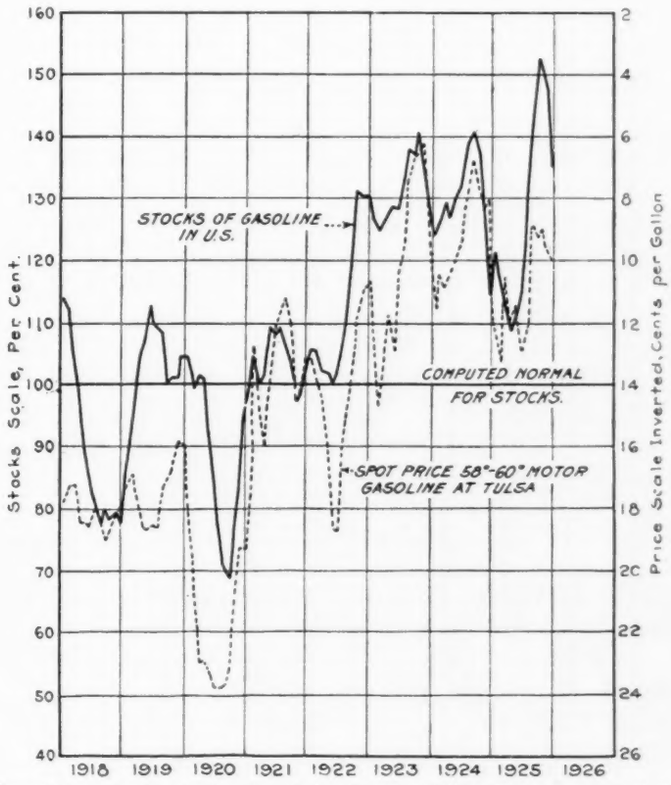
Other performers were Roy Francis, general sales manager of the Pure Oil Co., Columbus, who told funny stories and acted out a one-act sketch in which he played many characters, James C. Black, Pennzoil Co. who gave a cello solo and sang several songs and I. H. Shearer, Kendall Refining Co., who sang.

—N. P. N. Staff Photo

Dr. Joseph E. Pogue

FRED G. CLARK presided at the piano and sang a song of his own composition which was written for one of the Hermit Club shows in Cleveland. Mr. McCaslin, in addition to singing in the quartet, doubled on the banjo and sang and whistled several numbers.

Tom Moore of the Fred G. Clark Co. told stories of his experiences while



Correlation of the stocks of gasoline in the United States, expressed in percentages of computed normal, with the spot price of motor gasoline at wholesale on the Tulsa market.

travelling with Buffalo Bill's shows and with circuses.

At the Friday morning session, B. B. Stroud presided. The general topic of the meeting was "Manufacture." Charles L. Parmelee, consulting engineer, New York, read a paper on 'Petroleum Refining Capacity Required in the United States," which is published in full in another part of this issue. H. A. Ross and H. S. Bell read papers on steam generation and use which are published in full in this issue.

E. M. Lyons, Tiona Petroleum Co., trustee in charge of the department of trade and commerce, presided at the Friday afternoon meeting which closed the two-day convention. He told the members about the Refiners Trade Credit Bureau which was organized in Tulsa early this year and advised the members of the National Petroleum Association to join this bureau which provides for the interchange of credit information—actual ledger experience.

He also stated the opinion that one of the ways in which disputes over sales could be reduced is by making note of the full details of the transaction when the order is taken. He proposed the use by members of a uniform invoice, in size as well as arrangement of items with a space for notations left at the upper right hand corner. Fighting substitution was another matter that he stated belongs largely to the department of trade and commerce.

Judge C. D. Chamberlin, general counsel of the association, who attended the meeting, expressed gratification at the progressive actions being taken by the association toward improving efficiency and cutting manufacturing costs and predicted a successful outcome for them.

G. B. Hunter, Emlenton Refining Co., treasurer of the association, reported on the organization's finances.

Leod D. Becker, executive secretary of the American Oil Burner Association spoke on "What Domestic Oil Burning Will Mean to the Refiners."

The meeting closed with the adoption of a memorial resolution for Colonel U. G. Lyons and the presentation of a tribute by H. G. Eaton, Superior Oil Works.

List of Registrations at N. P. A. Convention

A

R. J. Alexander, Penn. Grade Crude Oil Association, Oil City, Pa.
W. K. Allen, United Refining Co., Warren, Pa.
Weston Atwood, N. P. M. Assn., Chicago, Ill.

B

F. G. Bannerot, Elk Refining Co. & United Refining Co., Pittsburgh, Pa.
Harry Barnard, Union Draft Gear Co., Chicago, Ill.
H. S. Bell, New York, N. Y.
Charles Berry, James B. Berry Sons Co., Oil City, Pa.
Frank Berry, James B. Berry Sons Co., Oil City, Pa.
James D. Berry, James B. Berry Sons Co., Oil City, Pa.
E. H. Besham, Levi Smith Refg. Co., Warren, Pa.
C. D. Blaier, Levi Smith Refining Co., Clarendon, Pa.
J. T. Brasnahan, Emlenton Refining Co., Emlenton, Pa.
J. W. Bridge, Union Draft Gear Co., Chicago, Ill.
George Brockway, Seneca Oil Works, Warren, Pa.
G. G. Brockway, Warr. Penn. Refining Co., Warren, Pa.
Earl E. Brown, Emery Manufacturing Co., Bradford, Pa.
B. W. Browne, Great Western Oil Co., Cleveland, O.
R. A. Browne, Pennzoil Co., Oil City, Pa.
R. G. Browne, Great Western Oil Co., Cleveland, O.
S. B. Browne, Great Western Oil Co., Cleveland, O.

C

D. E. Carrier, Pennzoil Co., Oil City, Pa.
H. M. Carruth, Canfield Oil Co., Cleveland, O.
C. D. Chamberlin, Cleveland, O.
Fred G. Clark, Fred G. Clark Co., Conewango Refg. Co., Cleveland, O.
R. W. Clark, Crown Central Petroleum Co., Warren, Pa.
H. A. Croft, Joint car inspector, Oil City group.
D. H. Culbertson, North Penn. Refining Co., Warren, Pa.

D

G. H. Detlor, Warren Refining Co., Warren, Pa.
Fayette B. Dow, Washington, D. C.
Houston Dunn, National Pet. Mutual Fire Ins. Co., Philadelphia, Pa.

E

Herbert G. Eaton, Superior Oil Works, Warren, Pa.
G. W. Ebert, James B. Berry Sons Co., Oil City, Pa.
D. L. Evans, Sloan & Zook Co., Bradford, Pa.
Myron Evans, Island Petroleum Co., Pittsburgh, Pa.

F

J. W. Fawcett, Crystal Oil Works, Oil City, Pa.
H. H. Fleming, Oil Conservation Engineering Co., Cleveland, O.

G

E. C. Gardner, Seneca Oil Works, Warren, Pa.
H. H. Greene, Kendall Refining Co., Bradford, Pa.
W. V. Greer, Crew Levick Co., Warren, Pa.

H

E. E. Harrington, National Refg. Co., Cleveland, O.
Howard Hanna, Valvoline Oil Co., Warren, Pa.
H. C. Hedges, Union Oil Co. of Penn., Warren, Pa.
G. B. Hunter, Emlenton Refg. Co., Emlenton, Pa.
E. M. Hyatt, Pure Oil Co., Warren, Pa.

J

L. C. Jamieson, Viking Oil Co., Warren, Pa.

K

O. P. Keeney, Tidewater Oil Co., New York, N. Y.
C. R. Kerr, Sloan & Zook Co., Bradford, Pa.
Otto Koch, Kendall Refg. Co., Bradford, Pa.

L

James Lewis, Bradford Oil Refining Co., Bradford, Pa.
C. R. Lindquist, Asiatic Pet. Co., New York, N. Y.
E. M. Lyons, Tiona Refining Co., Clarendon, Pa.
K. M. Lyons, Inland Petroleum Co., Warren, Pa.

M

T. E. McLaughlin, Independent Refg. Co., Oil City, Pa.
Chas. McLean, Canfield Oil Co., Cleveland, O.
B. H. Mathis, Warren Tank Car Co., Warren, Pa.
Samuel Messer, James B. Berry Sons Co., Oil City, Pa.
T. M. Moore, Tiona Refg. Co., Clarendon, Pa.
Tom Moore, Fred G. Clark Co., Cleveland, O.
E. S. Moorhead, Sun Oil Co., Pittsburgh, Pa.
J. T. Mullaney, Canfield Oil Co., Cleveland, O.
Alfred Mullhaupt, Jr., Kendall Refining Co., Bradford, Pa.

N

C. L. Nolf, Continental Refg. Co., Oil City, Pa.
J. B. Northrop, Ohio Valley Refining Co., St. Marys, W Va.

P

Carl Peterson, Allegheny Pet Co., Warren, Pa.
Harry S. Peterson, Seneca Oil Works, Warren, Pa.
Frank Philippbar, Kendall Refg. Co., Bradford, Pa.
W. C. Platt, National Petroleum News, Cleveland, O.
Joseph E. Pogue, New York, N. Y.
H. J. Pugsley, Goulds Pumps, Inc., Pittsburgh, Pa.

R

A. V. Roebley, Pure Oil Co., Warren, Pa.
H. A. Ross, New York, N. Y.

S

H. W. Schmidt, United Refg. Co., Warren, Pa.
A. W. Scott, Empire Oil Works, Inc., Oil City, Pa.
Col. E. V. D. Selden, Crystal Oil Works, Oil City, Pa.
W. H. Seltzer, Tri-State Refg. Co., Kenova, W. Va.
I. H. Shearer, Kendall Refg. Co., Bradford, Pa.
J. R. Sloane, James B. Berry Sons Co., Oil City, Pa.
E. W. Smiley, Warren, Pa.
Frank M. Smith, Valvoline Oil Co., Warren, Pa.
B. B. Stroud, McKean County Refining Co., Bradford, Pa.
R. B. Stumpf, Waverly Oil Works, Pittsburgh, Pa.
C. L. Suhr, Pennzoil Co., Oil City, Pa.
Alfred A. Swart, Lakewood, N. Y.

T

P. S. Tarbox, Independent Refining Co., Oil City, Pa.
Paul Truesdell, National Petroleum News, Cleveland, O.
George Turnbull, Derrick & Oil & Gas Journal, Oil City Pa.

V

C. L. Von Tacky, Titusville Oil Works, Titusville, Pa.

W

N. B. Williams, National Association of Manufacturers, Washington, D. C.
H. W. Walchli, Tiona Refining Co., Clarendon, Pa.

Oil Companies Operating 10 or More White Trucks

American Oil Company	12
American Petroleum Co.	37
Anglo-Mexican Petroleum Co. Ltd.	10
Atlantic Refining Co.	545
*Barnsdall Corporation	15
Brooks Oil Company	13
Buckeye Pipe Line Company	30
California Petroleum Co.	27
Canfield Oil Company	25
Carter Oil Company	18
*Cities Service Company	121
Comar Oil Company	22
Commercial Oil Company	10
Continental Oil Company	140
East Ohio Gas Company	20
Empire Gas & Fuel Company	19
Galena Signal Oil Company	15
General Petroleum Corporation	105
Gerkins Oil Company	13
Gilmore Oil Company	13
Great Southern Refining Company	11
Gulf Pipe Line Co.	14
Gulf Production Company	16
*Gulf Refining Company	1929
Gypsy Oil Company	37
Hope Natural Gas Company	27
Huasteca Petroleum Company	38
Humble Oil & Refining Company	63
Imperial Oil, Ltd.	121
Indian Refining Company	11
International Petroleum Company	22
International Petroleum Company, Ltd.	48
Johnson Oil Refining Co.	10
Julian Petroleum Corporation	22
Lily White Gasoline Company	31
Magnolia Petroleum Company	129
Manhattan Oil Company	13
Marland Refining Company	63
Mexican Gulf Oil Company	26
Mexican Petroleum Co., Ltd., of Del.	29
National Oil Company	31
National Refining Company	73
Ohio Oil Company	48
Ozark Pipe Line Company	29
Pan American Petroleum Company	45
*Pan American Petroleum & Tr. Co.	78
Petroleum Heat & Power Company	12
Pierce Petroleum Corp.	210
*Prairie Oil & Gas Company	45
Prairie Pipe Line Company	67
Producers & Refiners Corp.	12
*Pure Oil Company	30
Richfield Oil Company	91
Rio Grande Oil Company	43
*Roxana Petroleum Corporation	352
*Royal Dutch Company	45
Shaffer Oil & Refining Company	50
Shell Oil Company of California	185
Shell Company of Canada, Ltd.	11
Sinclair Consolidated Oil Corp.	21
Skelly Oil Company	21
Southern Oil Corporation	16
Standard Oil Company of Brazil	13
Standard Oil Company of California	276
Standard Oil Company of Indiana	242
Standard Oil Company of Kentucky	495
Standard Oil Company of Louisiana	136
Standard Oil Company of Nebraska	29
*Standard Oil Company of New Jersey	255
Standard Oil Company of New York	1032
Standard Oil Company of Ohio	162
Standard Pipe Line Company	19
Stoll Oil Refining Company	22
Sun Oil Company	87
Texas Company	156
Tidal Oil Company	22
Tide Water Oil Sales Corporation	65
Transcontinental Oil Company	37
Union Oil Company of California	780
United Natural Gas Company	13
Vacuum Oil Company	47
Waite Phillips Company	15
West India Oil Company	34
Wilshire Oil Company	16
Winona Oil Company	14
Wofford Oil Company	38
Total	9,390

*Exclusive of subsidiary or affiliated companies individually listed.

One of 87 White Trucks in the service of the Sun Oil Company

86 Oil Companies Operate 9390 White Trucks in Fleets of 10 or More

White dependability had been the deciding factor in the purchase of far more White Trucks by the oil industry than trucks of any other high-grade make. Year after year the leading oil companies continue to add to their White Truck fleets. They know from experience that Whites can be depended upon for uninterrupted transportation.

Convincing evidence of the satisfactory performance of White Trucks in the service of the petroleum industry is offered in the accompanying list of 86 oil companies operating 9390 Whites in fleets of 10 or more. Hundreds of other Whites serve the industry in fleets of less than 10. These great oil companies are shrewd buyers. Their judgment is your own best guide in spending your transportation dollar.

Let us send you free the 1926 White Roll Call booklet listing 961 concerns in all lines of business operating 35,755 White Trucks in fleets of 10 or more. Address Room 25

THE WHITE COMPANY
CLEVELAND

WHITE TRUCKS

MADE RIGHT — SOLD RIGHT — KEPT RIGHT

Savings Up to 50 Per Cent Possible In Many Refinery Boiler Plants

H. A. Ross
Associate of H. S. Bell, Woolworth Building, New York
Delivered at N. P. A. Meeting, Cambridge Springs, Pa., April 16

IF any of you gentlemen were questioned about the method of generating steam in your plant, you would say that you have boilers, pumps and other appliances for the purpose. That you purchase coal, employ men to fire it and that would be about the extent of your knowledge.

Gas or oil is a wonderfully efficient fuel. It is possible to obtain efficiencies as high as 84 per cent with it. It is clean, easily controlled and requires but little labor to handle it. Yet its cost, as compared with coal, makes it absolutely prohibitive from an economic standpoint. And I want to say to you men, who are now using such fuels, that you had better get busy and revise your equipment, as far as possible, so that you can burn coal.

There is a word that is often mistakenly used today in place of the word "Economy"—and that is the word "Efficiency." If an apparatus is operating economically, it is usually considered efficient, to a greater or less degree, as far as the actual dollar is concerned, but an apparatus may be 100 per cent efficient and yet absolutely uneconomical from the standpoint of that same dollar.

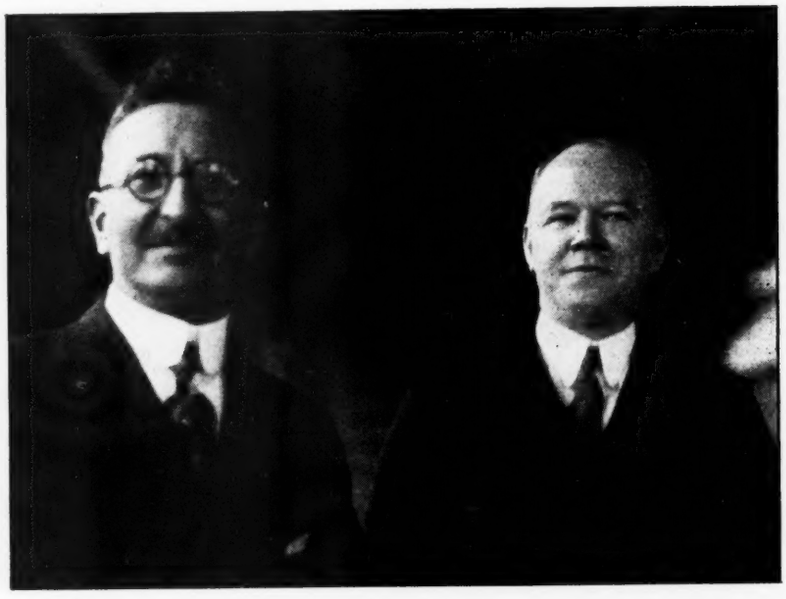
Today I am talking to a group of refinery men, but every statement I make relative to your boiler house economy would be just as applicable were you representing the textile, leather, paper, cement or a host of other industries instead. When I say to you that in lots of boiler rooms today 50 per cent of their fuel is being wasted, I don't mean maybe! I can show you test after test, covering a period of the past 20 years, where this has been proven—and the loss abated.

In our oil industries, we have discovered losses of 50 per cent as the high, and 10 per cent as the low, the average being about 22 per cent.

No Miracles

UNDERSTAND, this is fuel loss I am speaking of. In a number of cases the possible savings we have been able to make are an actual and accomplished fact today. How do we secure these savings, you ask? Well, in the first place, we didn't spend one cent of anyone's money, we did not work any witchcraft, psychology, psycho-analysis, or do anything of an unusual or extraordinary character. All we did was to upset a lot of old boiler room traditions.

I firmly believe that you refinery men have been used as good things for a long, long time. You have been victimized by the unscrupulous salesman with an appliance to save you 10, 15, 20 per cent of your coal. You have had the fellows with the "dope" for your coal or your boiler water sell you some junk similar to "Professor Peter Pen Pushers Pink Pills for Puny Gasoline." He told you it would save you 20 per cent —and you fell for it. Then along comes the fellow with other appliances that were all of them certain to secure you large savings.



N. P. N. Staff Photo

H. A. Ross and H. S. Bell

I can go through your plants and point out instruments, other apparatus and appliances that have cost you thousands of dollars. What are you doing with them today? Nothing! They are scrapped, junked—stuck in any old corner out of the way. You were burned good and proper, and you want to forget it, don't you?

You have been exploited also by your men, and have been compelled to believe everything they told you, because you were in no position to do otherwise. They have told you that they could only fire the boilers with long handled shovels, and you believed them.

The Wizard Fireman

LET me tell you something funny in this connection that I happened to stumble on in one of our boiler rooms. There was a fireman employed, who had held down that job for 20 years. He had the reputation of a wizard at firing, yes sir! He could produce steam when no one else could, and here was his boast. He did not have to look at a fire to lay on the coal, not at all! He demonstrated this to me time and again, and took pride in so doing. Here was his method.

He opened the fire door and turned his back to the boiler, gripped his long handled shovel and faced the coal pile and proceeded to heave in coal, twisting his body from the hips up only sufficient to reach the open door with the shovel. I have counted 30 shovels heaved at a time in this manner.

Meanwhile, the seat of his overalls begins to smoke from the radiant heat of the fire—but that has no visible effect on his posture. He has never so much as even glanced at his fire during all this time. He has never shifted a foot, or moved an inch from his original stand. His flourishes are a revelation and his stunt is astonishing. Think you he has done a good firing job?

Your men tell you that the coal is no good, the draft is poor, the load is heavy, and 1000 other excuses, and you have had to accept these statements as facts.

Gentlemen, I tell you again, you are being victimized and exploited daily under such conditions, and as long as you continue to countenance it, you may expect to play a losing boiler room game.

Unit Cost of Steam

I WANT you to consider the unit of steam that I have previously mentioned. In boiler parlance this is generally accepted as 1000 pounds. The cost to produce this unit is what we shall

N. P. N. Staff Photo

Charles L. Suhr

now endeavor to analyze. The various items going to make up this cost are substantially as follows. First, fuel cost, then the cost to handle it and to dispose of the ash. Next, we have the labor cost, which includes not only that of the fireman, but superintendence as well.

Another item is that of repairs and maintenance. Next we have an item over which I have had many scraps—that is the cost to pump the boiler feed water and the cost to heat it, also. I claim it is a legitimate one and should appear in an analysis of this character. The next item of cost is that of capital investment, interest on the same, and the final items of depreciation and obsolescence. Now the items I have just mentioned are real and as fixed as the Rock of Gibraltar—ignore them if you will, but you can't beat them. You pay the bill eventually.

Be your plant absolutely modern in every respect, or be it just the average one, as we find it today, the costs I have stated are equally applicable in either case. In compiling costs of this character in a number of plants, I have been much impressed with this fact, that in spite of every modern improvement conceivable, the unit cost of steam in some modern plants is much higher than it is in some of the plain, old-fashoned H. R. T. installations.

The Human Element

THERE is one outstanding feature, however, that I believe transcends all others in its importance, and upon which the whole structure depends for its success, that one is the "Human Equation," and when we have solved it, our Eldorado will have been discovered and our boiler room Utopia attained forever and ever.

You and I have heard the statement made on a number of occasions that the chief requisite for a successful fireman was a "strong back and a weak mind." That belief, or opinion, today is costing this nation millions of dollars annually, and the sooner we revise our ideas in this particular, the quicker we shall begin to make our economical progress along fuel lines.

What wages do you pay your fireman per diem—four, four and a quarter, a half, five dollars, or more? Is that all you pay him? Suppose he wastes a ton of your coal during his tour, now how much are you actually paying him? Is it not a fact that whatever he wastes of your fuel is a direct and definite sum of money lost, and where else can you absorb it, except through your labor costs? Do not misunderstand me—I do not mean to say that your men maliciously waste fuel, they don't know any better, and who have you to instruct them? Can you, or is there anyone else in your organization to do so?

Now, another fact that we should consider is this. The boiler house may be equipped with every modern appliance, such as stokers, flow meters, damper regulators, CO_2 recorders, indicating thermometers, pyrometers and pressure gauges, fuel savers of every description, economizers and superheaters. Can't you see that each and all of these accessories cannot save you one penny in fuel of themselves? It is the intelligent interpretation of the conditions they indicate by the human element, that in the last analysis means either loss or profit.

Instruments Alone Useless

THERE are cases without number where these instruments are installed, and the management is today resting content in the belief that because their plants are so equipped they cannot possibly lose fuel dollars. If the truth were only known, a false sense of security has been engendered that, frequently, is very misleading. And all because of our human equation and its shortcomings.

I do not want to appear unduly caustic in my remarks or hypercritical either, but I do have an earnest and sincere desire to help you to a proper understanding of the "why" of very big losses you sometimes suffer. And, if it is necessary to disturb your serenity a bit by a plain statement of fact, and by so doing start you on the way to realizing a bit more profit from your boiler room investment, I am sure you will agree with me that the end justifies the means.

Another important fact that I find in practically every boiler room I visit is this—no one seems to have ever considered the necessity or advisability of maintaining a system of records of boiler room performance. Can you tell me what is your boiler room consumption of coal and water.

And what is its output of finished product, steam? How many pounds of coal do you burn per day? How many pounds of steam do you generate? What does it cost you per 1000 pounds? I could go on and ask numbers of other very important questions along this same line, but I'll wager there are many present here today who could not answer these questions intelligently.

Gentlemen, you have gone to extreme lengths and made an exhaustive study of the crude oil you handle. You receive an invoice of the crude, and you know just what fractions you will run—the percentages of each, and the losses. You have a laboratory equipped and men employed to see that your various grades of oil conform to a rigid standard of flash, fire, pour, viscosity and color.

You would not think of, nor consider, deviation from formula in the least particular, and woe be unto the transgressor when error is made. It is, of course, necessary and vital to your business that certain rules be observed by everyone in this connection, and no man would dare violate the standard you have established.

Boiler Plants Neglected

YET we allow our boiler plants and their operation to swing along in any old way at all, just as long as steam is produced and refinery demand satisfied. Then we wonder why our fuel costs are so high, and why it takes such a tremendous amount of coal to process a gallon of oil.

I might continue for hours in this fashion with unfavorable comparison, to prove the neglect and the scant attention that is usually accorded the average refinery boiler room. But I have digressed only sufficiently long to indicate just how little importance is attached to the average boiler room operation.

We started to analyze the human element in our boiler room, and again continue along that same line. Let me first draw you a mental picture of a typical boiler room, not necessarily a refinery boiler room, but most any average industrial boiler room. The prevailing motif of the whole is one of squalor and filth, and the screech of escaping steam and the glare of red hot furnaces only serve to emphasize the dejectedness of the whole ensemble.

We place a human being in this hole and expect an efficient operating condi-

(Continued on page 52)

N. P. N. Staff Photo

R. J. Alexander

Quoting from a discussion between Mr. Walter C. Teagle, President, Standard Oil Co. (N.J.), and Mr. Geo. S. Davison, President, Gulf Refining Co., before the Federal Oil Conservation Board at Washington, D. C., February 10th and 11th, 1926:

(From the official record as printed by the Government Printing Office, Washington)

"Mr. Davison. May I ask Mr. Teagle a question? Mr. Teagle, so long as fuel oil remains the cheapest source of gasoline will not the economic tendency be to absorb the fuel oil regardless of the general level of gasoline prices?

"Mr. Teagle. Absolutely. You would not run on a higher-priced crude if you could make the same product out of a cheaper crude.

"Mr. Davison. So that the question as to what the price of gasoline is at the present time is not, after all, the determining factor. *The determining factor is, is it not, Mr. Teagle, the cheapest source of gasoline supply,* and therefore *the economic tendency is to install cracking facilities and crack the fuel oil?*

"Mr. Teagle. That is the whole point that I tried to make in my paper yesterday."

(Italics used are ours)

Universal Oil Products Company
Owners of the Dubbs Process
310 South Michigan Ave
Chicago, Illinois

LUDLOW VALVES

—everything a first class valve should be—made right—priced right and work right.

LUDLOW DOUBLE GATE VALVES

are dependable servants—always on the job doing their work the way you expect it to be done.

Let our nearest office quote you prices.

The Ludlow Valve Mfg. Co.

(*Established 1866*)

Factory: Troy, N. Y.

Branch Offices: Kansas City, Mo. Chicago, Ill. Pittsburgh, Pa. Boston, Mass

THE GEOLOGY OF PETROLEUM

is the name of the book written by William H. Emmons, which goes into detail describing the more important fields such as the Appalachian, Lima-Indiana, Illinois, Mid-Continent, Gulf Coast of Texas and Louisiana, Rocky Mountain, Canadian, Mexican and foreign fields.

It contains 610 pages, with 254 maps and illustrations, and may be purchased for $6 from—

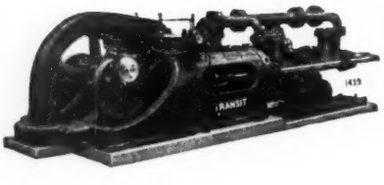
National Petroleum News

824 Caxton Building **Cleveland, Ohio**

TRANSIT PUMPS

for large and small pipe lines

Descriptions on Request.



NATIONAL TRANSIT PUMP & MACHINE CO.

OIL CITY, PA.

District Offices: **New York, Pittsburgh, Tulsa, Cleveland, Houston and Denver, Philadelphia.**

(Continued from page 49)

tion. This place and its human element is the very heart of your plant and business. Your whole manufacturing structure is dependent on the manner in which it functions.

In this dingy building we propose to evolve a chemical marvel that has no other parallel in the realm of science, and we begin this transformation of crude elements by employing the strong back and weak mind. We show him our boilers and coal pile and tell him to go to it and make steam.

"Make Steam" Only Instruction

WE impress him with one fact only, and this is, that he is expected to produce steam. There's the coal pile and yonder the boilers—make steam. Now this fellow starts in and does a bit of investigating, he discovers a shovel, and as long as the fires appear to be a bit dead, he decides to throw on some coal. Naturally, he is anxious to please his boss and is desirous of doing a good job. He throws on a good big lot, reasoning meanwhile that if a little does some good, a lot does still better, so here goes for a good job right off the bat.

After he has heaved probably 300 or 400 pounds in each boiler, he investigates a bit further and discovers that each boiler has an old, rusty, decrepit sort of a steam gauge stuck on it somewhere to tell him what pressure is being carried on the boiler. He finds that no two of these gauges read alike, maybe there will be a difference of 20 pounds between them.

Investigating a bit further, he will probably discover a master gauge stuck in some out-of-the-way corner, and he concludes that he will use that particular one as a guide for his pressure. It does not interest him a particle whether it is correct or not, it can be 10 or 20 pounds light, or heavy, for all he knows or cares, he intends to use that.

About this time he discovers that each boiler has a water column on it, and as long as several of them show but very little height of water, he hunts out the pump, opens the feed valve, starts it up and proceeds to inject water into the boilers. Following the same line of reasoning as he did with the coal, he pumps the boilers up full while he is at it, makes a good job of it so that it will last awhile. About this time he decides the fires must need more coal, so he proceeds as he did at first, to again heave in a good big supply to last a while. So this cycle of steam production goes on hour by hour and day by day.

Picture Not Overdrawn

Gentlemen, this boiler room picture is not overdrawn, but prevails in a majority of cases today, substantially as I have stated them. The only instruments, if such we could term them, that we have given our men to do an economic job with is a shovel and an incorrect steam gauge. Pause and consider for a moment, please, this economic trinity—the human equation (strong

back and weak mind), an incorrect steam gauge and a shovel.

With this combination now, we are going to take an element we call coal, or, more correctly speaking, carbon, and an element we call oxygen, and we intend to combine them into a compound of such structure that in its formation a great heat will be evolved. This heat we intend to harness in such fashion as will perform useful work for us.

Dame Nature is a wonderful old lady and is always ready to help and assist as our need arises. But when we play our games with her assistance, it is she who becomes the dictator. She has laid down certain rules which we must observe. Her regulations and laws are inexorable. She does not permit deviation in the slightest detail, and if we choose to run counter to her demands, she exacts a penalty from us directly proportionate to the extent of our transgression.

Here we have the two elements I have previously mentioned—carbon and oxygen, either of which may be termed potential power, but unless they are combined in accordance with a fixed law and in definite proportion, loss is bound to occur.

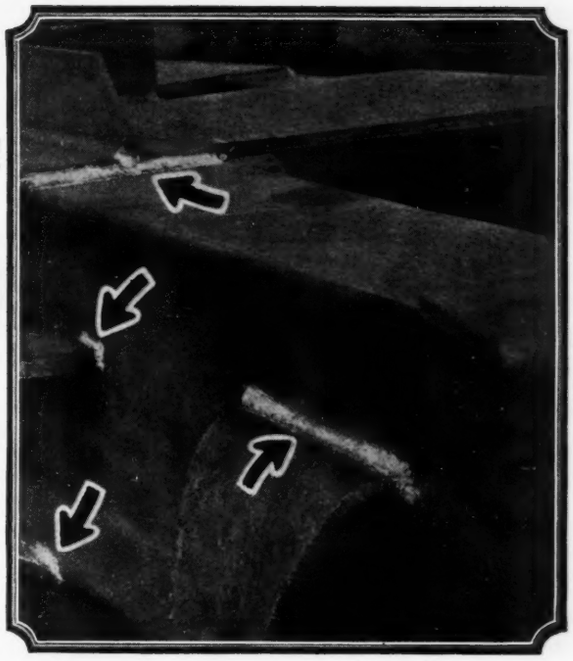
Combustion Part of Life

COMBUSTION—a process of oxidation, is so interwoven with life itself that our very existence is dependent upon it. The same processes that are occurring in our bodies are identical with that which happens in our furnaces, but with this difference, however. The innate intelligence inherent in each of us, automatically and within definite limits, controls combustion processes in our bodies, while our intelligence alone must control this same process under our boilers. Don't forget, however, that if you stoke your body with an overabundance of fuel, disaster will follow. Do the same thing under your boilers, and the results are similar. We must follow the natural law, or suffer the penalty.

You may feel that I have been entirely too abstract in my former statements, so if you will just join me in a little mental gymnastic exercise, with a few simple figures, we may have a concrete illustration of what I am trying to tell you. Think, if you will, of a 100 horse-power boiler. We shall not concern ourselves with its dimensions.

Its capacity for production is 100 horsepower per hour. Naturally, this unit may be operated at a reasonable percentage of over-load. Now, a boiler horsepower, as we use it today, is the evaporation of 30 pounds of water into steam.

I stated that 30 pounds of water evaporated into steam was the equivalent of a boiler horse-power. Therefore, a 100 horse-power boiler will produce 100 times 30, or 3000 pounds of steam per hour. To produce this 3000 pounds of steam per hour, we, of course, understand that we must burn fuel. Continuing our illustration a bit further, I want to assume that our 100 horse-power boiler is cold. There is no fire under it, but it is filled with water to the proper



PAGE-ARMCO
PROCESSED
Welding Wire *and* Electrodes
assure Perfect Welding
on Structural Steel

Wherever structural steel must be welded quickly and economically — Page-Armco Welding Wire and Electrodes will prove their superiority. The exclusive Page method of processing all wires and electrodes to meet the type of welding for which they will be used assures against spoiled work—saves the welder's time and shows a reduction in costs.

Whatever your welding problems, you can permanently and economically solve them by adopting as standard Page Mild Steel Gas Welding Wire and Electrodes or Page-Armco Wire and Electrodes and Page High Carbon Wire and Electrodes.
Let us prove this to you. Write for data and samples for tests. No obligation.

PAGE STEEL & WIRE COMPANY
An Associate Company of the American Chain Co., Inc.
BRIDGEPORT - CONNECTICUT
District Offices: Chicago New York Pittsburgh San Francisco

BETHLEHEM
WAX PLANT EQUIPMENT

Filter Presses — *Wax Moulding Presses*
Wax Distillate Chilling Machines — *Scale Wax Cooling Drums*
Wax Testing Presses — *Paraffine Wax Sweater Plants*
Complete Wax Plants designed and built
Pumps, Stills, Towers, Condensers and other Oil Refinery Equipment
Oil Burning Systems — *Complete Power Plant Equipment*

BETHLEHEM SHIPBUILDING CORPORATION, LTD.
BETHLEHEM, PA.
GENERAL SALES OFFICES: 25 BROADWAY, NEW YORK CITY

level, and the grate is covered with tinder to start the fire. We strike a match. As quick as we do so, it ignites.

The Start of the Process

RIGHT here the natural law of combustion begins. One molecule of carbon contained in the wood of the match combines with two molecules of the oxygen in the air, to form a chemical compound called CO_2. From this combination heat is evolved. The more rapidly this CO_2 combination takes place, the greater will be the heat evolved per interval of time. Of course, there is only so much carbon in the match, therefore the total available heat in it is of a definite quantity.

You can readily understand that if, under ordinary conditions, it required a minute to evolve this total quantity of heat from the match, but if by some outside means we would complete this combustion in one half the time, double the quantity of heat per unit of time would be evolved.

We apply our match to the tinder under the boiler and it begins to burn, a greater volume of heat ensues as it becomes ignited. Presently we begin to lay on our coal. All this time, the cold water in the boiler has been absorbing, through the medium of the boiler shell, a certain proportion of the heat we have been generating in our fire by the combination of the carbon in the coal and the oxygen in the air which we are admitting through the fuel bed. As the temperature under the boiler increases, the temperature of the water increases, until it reaches a point where its equilibrium becomes unbalanced, then a change in its characteristics occurs and it assumes a different form that we call steam.

Steam Temperature Goes Up

The continued rise in temperature of the water causes a corresponding increase in the steam temperature. As the temperature of the steam rises, increase in its volume occurs, and as this increase in volume has no place to spend itself (because our boiler for the time being is a closed vessel) only one thing can now happen. A pressure begins to build up, and here is where our PVT (pressure, volume, temperature) formula originates. You have doubtless run across this a lot of times in your business of oil refining.

In due time, as our fire increases its volume of heat and as combustion progresses, we find a pressure of steam suitable for our purpose has been generated, and we are ready to open the valves and permit the steam to flow to points where we wish to use it. Now remember, that this boiler is to produce 3000 pounds of steam per hour. This would be at the rate of 50 pounds per minute. A number of our text books tell us that 5 pounds of bituminous coal will produce one boiler horse-power (personally I believe this to be a very low evaporative rate, but it will serve our purpose of illustration).

I stated that 30 pounds of steam equalled one boiler horse-power, and our rate of steam flow from our boiler being 50 pounds per minute, 50 divided by 30 (or one horse-power), means that our flow rate per minute then equals one and two-thirds boiler horse-power, per minute, and 5 pounds of coal being necessary to produce one horse-power, it will require the consumption of 5 times one and two-thirds, or about eight and one-half pounds of coal per minute to produce our flow rate of 50 pounds of steam per minute.

This we would term an evaporation of about six pounds of water per pound of fuel. Two other facts now appear in our problem. There must be a flow of water to the boiler equivalent in weight to the 50 pounds of steam flowing from it. There must also be a weight of air somewhat in excess of that actually needed flowing to our boiler, to continue and support the combustion of our coal.

—N. P. N. Staff Photo

Samuel Messer

Reason For Excess Air

THE composition of this air is approximately 79 per cent by volume of nitrogen and 21 per cent by volume of oxygen. This is not altogether true, because our atmosphere also contains some of the rarer gases, such as argon, helium, etc., but these gases are of so slight a volume as to have but little effect on the main bulk of our air for combustion purposes.

Only the oxygen in the air is of any value to us for the purpose of combustion, so you see that for every pound of oxygen we need, we must also take with it about 3.32 pounds of nitrogen, because the proportion of nitrogen and oxygen by weight is 76.85 and 23.15 per cent, respectively. Without pestering you with a lot of chemical formula in this connection, I will simply state that theoretically for every pound of carbon we burn, 11.52 pounds of air will be required. Now then, to properly burn this 8½ pounds of coal per minute in our model boiler, which I have constructed for you, we shall need at least 95 pounds of air to flow into our boiler per minute.

N. P. N. Staff Photo

Herbert G. Eaton

We have now evolved an ideal boiler that will produce 50 pounds of steam per minute. To accomplish this, as before stated, requires an equivalent flow of water, a definite consumption of fuel and a proper flow of air. Each is a function of the other. Change the rate of flow of our coal, air or water, and you immediately affect the flow of your steam.

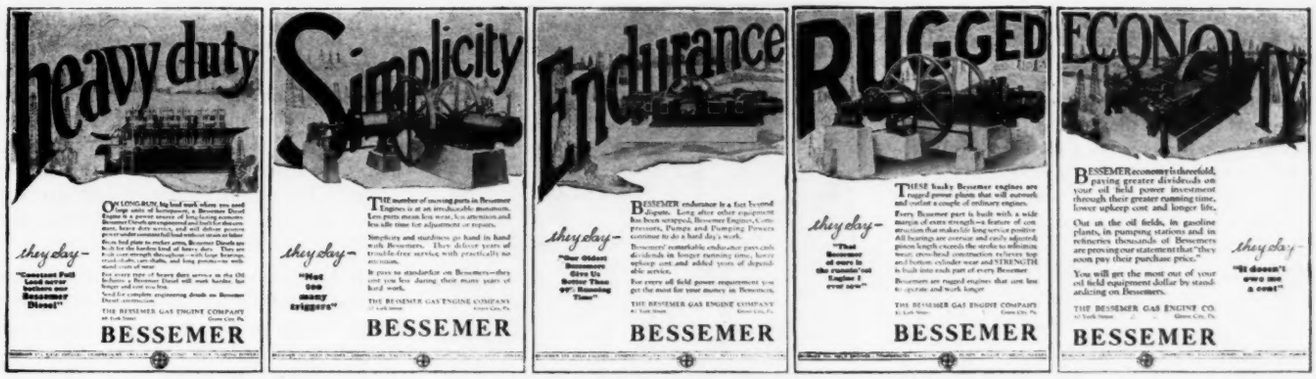
The Feed Water

LET us take the water flow first. Suppose we increase the rate of water flow from 50 to 100 pounds per minute. What happens? Immediately the boiler must divert some of the work it was doing in sending steam into the lines, to heat the added volume of water to a proper steaming temperature. Our steam flow is affected thereby in a direct ratio.

Suppose we increase the firing rate and stoke double the amount of coal per minute. Right here is where we uncover our first big loss. Our conclusion would be that we would double the rate of our steam flow, but we don't.

The most effective part of a boiler is that upon which the radiance of the fire directly shines. You have often stood in the direct rays of the sun and noticed the effect of the heat on your body. Have you also noted the feeling of chill should a cloud or some other object suddenly intervene and cast a shadow on you? This same thing occurs in your boiler from your excessive coal. You have interposed a shadow between your fire and your boiler.

Remember, I said that it was necessary to supply about 95 pounds of air to support the combustion of the eight and one-half pounds of coal. Now, our air flow has been restricted by the large amount of coal we have just fired, and, therefore, we cannot introduce a necessary amount of air to support the com-



What makes a man valuable to you?

AREN'T these the things that you appreciate most?—*loyalty—dependability—proven ability to get things done right without requiring constant attention and nursing—reserve strength and power equal to emergencies.*

You want exactly the same characteristics in your power equipment!

Bessemer equipment is planned, designed and built with this goal in mind—to produce equipment which not only renders faithful, care-free service around the calendar under routine conditions but stands the gaff of the emergency just as successfully.

No single part is approved on preliminary blueprints or in the final inspection unless it allows for the hardest test it can face under practical operating conditions out in the field. The extra margin of performance—the safety factor so vitally necessary to you—is built into it before it leaves the factory.

THE BESSEMER GAS ENGINE CO.
70 York Street ∴ ∴ Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS – VACUUM PUMPS – ROLLER PUMPING POWERS

bustion of the coal as the gases are distilled off in so short a space of time. What is the result?

Oxygen combines with carbon in two different ways: first one molecule of carbon combines with a molecule of oxygen to form CO or carbon monoxide. This is a gas similar to our illuminating gas, and in this combination about 4380 Btu per pound of carbon are generated. Now this CO, or carbon monoxide, before it can combine with another molecule of oxygen to form CO_2, must be ignited, and the temperature at which it ignites is not less than 1210 degrees Fahrenheit. When it does ignite and combines with this other molecule of oxygen to form the CO_2, 14,540 Btu per pound of carbon have been evolved.

Shadow Cools Boiler

YOU can understand then that first we threw the shadow on the hot boiler. Then we lowered our furnace temperature so that proper ignition could not occur, and, in consequence, instead of combining our carbon and oxygen to evolve the 14,540 Btu, we have combined them in such a way as to only derive 4,380 Btu, because we could not inject sufficient air. Therefore, a net loss of over 10,000 Btu occurs for every pound of fuel burned in this manner. You see from this then that our 50 pounds steam flow rate is again affected, and we have wasted a lot of fuel in addition.

We can also understand from this how very important it is that coal be applied to this boiler as near as possible at a rate constant with the flow of steam. When this large amount of coal was fired, we probably did not get it spread evenly, and because of a long firing interval, a large hole has burned through the fire and is admitting a lot of free air into our furnace.

Here is a paradox—we are admitting too much air into our furnace, and yet there is not enough to support combustion properly. Why? This air is entering the furnace in extremely large volume through the burned out portion of the fire or the thin spot. By-passing or short circuit of the active fuel bed now occurs.

Following the line of least resistance, the air rushes up into the furnace without combining with the carbon, through the boiler, and up the stack. In its course, it dilutes the hot gases we have already produced and in its passage through the boiler actually absorbs heat from it until its temperature is raised to at least that of the hot surfaces over which it has passed.

Instead of being forced through the fuel as it properly should be, we have permitted its unrestricted entrance and we have, therefore, derived a further loss as a result. Smoking stacks most certainly indicate an unnecessary waste of fuel, but did it ever occur to you that a clear stack might indicate much heavier loss from this excess air condition?

N. P. N. Staff Photo

R. A. Browne

Conditions Ideal, Not Practical

THE conditions of our model boiler and the manner in which I have stated it should operate are, I know, impractical from a daily operating standpoint, but the closer we endeavor to maintain a regularity of operation of input to output, the greater will be the economy, not only from a fuel standpoint, but also from the fact that our distillation processes are, to a great extent, dependent upon steam pressures or flow to our stills.

If the steam valves to our stills have been set by the stillman for a certain pressure, and this pressure continually varies first up and then down, irregularity of still operation naturally follows. Then we wonder why yields, colors, flash, viscosities, etc. have gone to the bad.

Suppose we are steaming filters, our valves are set accordingly. Saturated steam of a particular pressure is always of a definite volume and temperature, either one of the three is a function of the other two. Change the pressure of the steam by irregular firing routine, and its volume and temperature change. Consider the resulting effect on the filters, if you please.

We now come to another very important fact in our boiler operation. Our highest rate of heat transfer from the fire to the water through the medium of the metal in our boilers, can only occur when both sides of it are absolutely clean. That is to say, the outside and the inside, or the fire side and the water side.

Length of Gas Travel

Just a few more simple figures by way of illustration. Take again our 100 horse-power boiler. We will assume that it is 20 feet in length. Such being the case, there will be a total length of 40 feet of metal that the hot gases must travel over before they reach the flue. For the gases first pass around or under the boiler shell to the rear, then back again to the front of the boiler through the flues, then rising to the smoke up-take and out through the breeching to the stack.

The temperature of our furnace, we will say, is 2000 degrees Fahrenheit. (It should be 400 or 500 degrees hotter than this for best economy). However, we will consider the 2000-degree temperature. If the pressure of the steam is 100 pounds gauge in the boiler, the temperature of this steam, will be about 338 degrees F. Dependent upon the rate at which we burn our coal, and if we are operating economically, we would not expect that the gases from our fires would be over 200 degrees F. higher than the steam temperature when they pass out of the boiler. This would mean then, that the final temperatures of the gases would not be over 338 plus 200, or 558 degrees—say 560 degrees.

Now our gases travel through the boiler at a certain velocity and I shall assume that this velocity is 1200 feet per minute, or 20 feet per second. (This, by the way, is low).

Remember, I said there was a total gas travel of 40 feet in our boiler. Such being the case, our gases at a velocity of 20 feet per second will pass over the 40 feet of surface length in just two seconds, and in that short interval of time, they must give up 1440 degrees of their temperature. For I told you that the furnace temperature was 2000 degrees and the escaping gases final temperature was 560 degrees, thus a temperature difference of 1440 degrees must occur in two seconds of time. Rather startling isn't it? And wouldn't you also consider it a mighty rapid rate of heat transfer? To make this a bit more startling, I want to tell you just one additional fact in this connection.

Rapidity of the Process

WE admit the air to our fires at a temperature somewhere near that of the atmosphere. Naturally, the colder the day, the colder the air. Let us assume that we admit the air at a temperature of 50 degrees. The very instant it enters the furnace and combines with the carbon, its temperature has been raised to the 2000 degrees, or more, previously mentioned. Therefore, in this short interval of two seconds or less, we have raised the temperature of the air from 50 to 2000 degrees and then absorbed 1500 or more degrees from it and passed it out to the open air again.

We must understand from what I have said, how very important it is that all of the boiler surfaces are clean, so that the boiler may properly absorb the heat. But I find that the proper method in the average refinery is reversed. Instead of cleaning our heat absorbing sur-

Don't page the junk man!

THESE FACTS are true, not only of Oxweld blowpipes, but of the well-known Oxweld low pressure acetylene generator. Many thousands of installations in nationally known plants are giving service of such satisfactory character that not only because of the high trade-in value customers replace them, when finally necessary, with new ones made by Oxweld.

YOU won't need to if you buy Oxweld apparatus.

When you trade-in your automobile you prepare for the worst and you get even less. The same thing holds good for the trade-in value of a lot of industrial equipment.

Oxweld blowpipes, on the other hand, have a high trade-in value. Add to this the fact that Oxweld apparatus has a long industrial life and stands up under severe daily service, and you have a combination that spells economy.

These are just two more reasons for Oxweld's leadership.

OXWELD ACETYLENE COMPANY

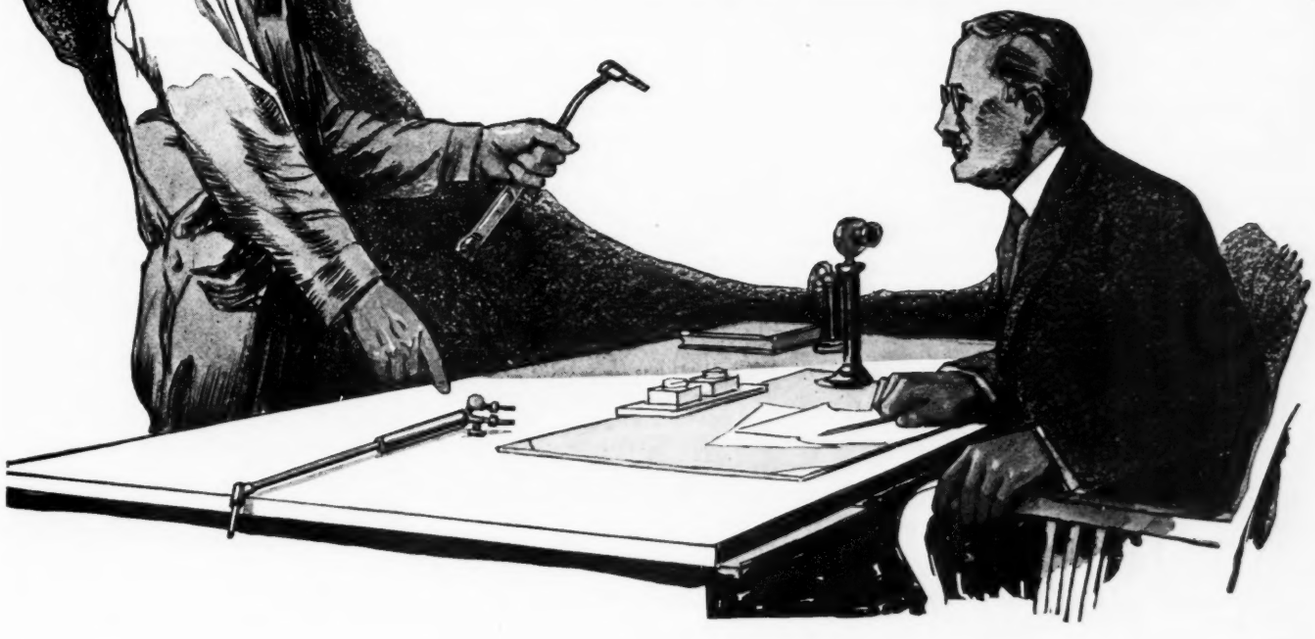
Chicago
3642 Jasper Place

Long Island City, N.Y.
Thompson Ave. & Orton St.

San Francisco
1050 Mission Street

Oxweld

WELDING AND CUTTING APPARATUS



C. L. Parmelee and B. B. Stroud

N. P. N. Staff Photo

faces and insulating our heat transmission surfaces, we reverse the order and insulate the absorption surface with scale and soot and permit the steam lines to remain uncovered. Such conditions mean that we lose at both ends of the coal pile.

Another place we lose large quantities of fuel is through cracks in the boiler walls, warped and ill fitting doors, etc. Tremendous volumes of air continually pour in the boilers, diluting the gases and actually abstracting heat from the surfaces. Another bad effect from this source, is that the stack is compelled to handle unnecessarily large volumes of excess air to the detriment of the boiler draft.

Losses in the Ash

There are a number of other causes that are of regular occurrence in the average refinery boiler room, such as loss of carbon in the ash, leaking joints, uncovered steam pipes, condensate losses, etc., that would require hours upon hours to analyze.

Science has given us our knowledge of the generation of steam and its application to our varied industries through the medium of the laboratory. Obviously, such delicacy of measurement, and refinement of calculation could not be applied to our boiler rooms.

We now know that your losses are definite and real; we also know that they can be abated and profit obtained, where loss has prevailed. We have also determined in our own minds how this may be accomplished in an economical and practical manner. It would be a poor physician, indeed, who could diagnose your ailment and not be able to prescribe a cure. It is just as a poor patient, who refuses to take his medicine.

I have spent many hours in your boiler rooms, actually working with and instructing your firemen; talking to them in terms they could understand and instructing them in the principles of combustion. I have also burned a lot of the midnight oil, in an effort to devise some sensible way in whch to coordinate the complexities of your different power plants so that a uniform method of operation might be applicable to all alike.

Up to Managers

GENTLEMEN, I am not a miracle worker. I make no claim to omniscience or omnipotence. Don't get the erroneous idea that just because I have spent a few days in your plants—your problems are solved, without any further effort on your part. Your work has only just begun. If, in the press of other matters, you choose to ignore, neglect or forget the advice you have been given, you will be the one who will suffer the loss.

"Cost Cutting" is the slogan of successful business today. Men, as never before, are devoting time and money in unlimited measure to defeat uneconomic waste that has heretofore prevailed, not only that money may be saved, but also that posterity may not be called upon to pay the penalty of our neglect, and damn us for needlessly wasting the heritage to which they are justly entitled.

Do not get the idea that I am a visionary, or an altruist. I assure you large savings are possible in your plant. This statement is based upon what we have absolutely accomplished in the past, and is a matter of record in thousands of cases all over the land today.

Now the only way this can be accomplished is:

First, by systems of daily records. These records must contain such detail of operation and production as that a definite cost per unit of steam may be had. These records must be recapped to monthly sheets of similar character for comparative purposes.

Second: You can never hope to control your waste of fuel by employment of any Tom, Dick or Harry, just because he can handle a shovel. You may consider what I am going to say, a pipe dream—but I honestly believe that we must educate our firemen to obtain economy, in the following manner.

Schools of instruction should be established along practical lines. Your men should be compelled to attend such a school as a part of their routine duties, and should be paid their regular wage while so engaged. After they have passed a proper test, they should be made to further demonstrate their proficiency by actual performance in your boiler room, increase in their wages to be proportionate to their proficiency. If the man can't make the grade—kick him out and forget it.

I'll wager that if such a plan as this was adopted by the members of this association, at least 50 per cent of your firemen would resign in mighty short order, and that is just what we desire—automatically and without further effort on your part, you at once begin an economic house-cleaning. You have figuratively said—Produce or beat it.

Third: Don't expect your superintendents to work an economic miracle in your boiler roooms. They've got their hands full in producing your goods. Don't expect these men to be able to duplicate the accomplishments of the science of engineering. If you can save 5, 10, 15, 20 or $25,000 dollars a year, don't you think such a saving would warrant the expenditure of a few hundreds of dollars a year? Invest $1000 and earn $10,000 on it. I challenge you to beat it in any stock market.

N. P. N. Staff Photo

Roy Francis

Can you Produce an Oil So Good—So Simply—as this?

The Following Shows the Result of Contacting and Sweetland Filtering a Lubricating Oil Produced from a Mixed Base Crude.

	New Stock Before Treating	Finished Oil After Treating
Gravity	26.6	27.2
Flash	395	395
Fire	465	465
Vis @ 100	177	171
Color	Dark	3—
Ash	0.005%	0.001%
Carbon Residue	0.192%	0.112%
Acid No.	0.014	0.014
R. E. No.		0.5

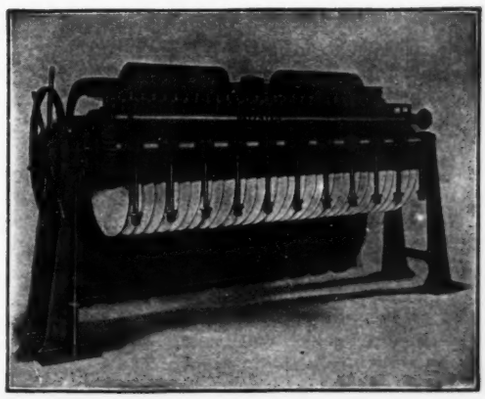
This oil was acid treated and settled—then clay treated without caustic neutralization.

The installation of a complete contact plant with a capacity of 250 barrels per day of the above oil would cost only about $12,500.00 or $50.00 per barrel daily capacity. Operation is inexpensive—the cost of contact filtering would only be about one cent per gallon including interest and depreciation on investment, maintenance, clay, labor, heat and power.

Sweetlands can filter heavy oils straight without naptha dilution and treated at high temperatures to assure a more stable product.

Below is illustrated the Sweetland Pressure Filter which is used for contact filtration.

Write any of our offices for facts on this process which is being adopted by leading Refineries.



American Continuous Filters
Sweetland Pressure Filters

UNITED
AMERICAN
SWEETLAND
KELLY
FILTERS

Kelly Pressure Filters
United Filter Presses

UNITED FILTERS CORPORATION

Main Office and Laboratory
Hazleton, Pennsylvania

New York — Los Angeles — Chicago — Salt Lake City

Export Office: 25 Broadway, New York

Code Address: UNIFILTER, New York

Keeping Costs and Pooling Experience Will Help Refinery Efficiency

By P. S. Tarbox
Manager, Independent Refining Co., Oil City, Pa.

Delivered before N. P. A. Meeting, Cambridge Springs, Pa., April 16.

BEFORE attempting to discuss cost accounting, I trust you will pardon me for a few remarks along the line of statistics.

Do not interpret me as favoring too elaborate attempts in the compiling of figures for us small refiners, but I do favor keeping a reasonable number of charts that we might have before us the picture of supply and demand of the more important commodities and believe that each chart should not only show totals but districts as well.

I have particularly in mind crude oil stocks, stocks of gasoline, kerosene, fuel oil, wax and lubricating oil stocks. Charts on prices are very interesting, and at times of real value.

I am thoroughly convinced that either the absence of charts or the utter disregard of their story as they pertain to kerosene oil, cost the refiners in the Pennsylvania district many thousands of dollars during December, January and February. Either the absence of this information or the disregard of its prediction by the majority, of necessity forces those who believe they can see a short distance into the near future to meet competition to a certain extent.

Could Have Gotten a Cent More

DURING this entire period, it is safe to predict that a majority of the kerosene moved would have moved equally as well had the price been a full cent per gallon higher, and certainly those who were following their charts were very sure of what was going to happen. This is only one illustration of the many benefits of charting statistics.

Possibly you noticed at the recent meeting of the American Management Association "Stabilizing Business" was the general theme of various group sessions. The use of public forecast was pointed to by several speakers as an invaulable aid in stabilizing general conditions as well as specifically helping the individual company.

It is very generally agreed that cost accounting is a real necessity in all major industries today, and if we have not investigated, we would be surprised at the amount of work the U. S. Chamber of Commerce has done along this line for a multitude of industries.

I hold in my hand here a treatise on cost accounting through the use of standards issued by this chamber and when I realize that one of the universal arguments presented by refiners against attempting cost accounting is that it cannot be made accurate, I get some satisfaction in reading the closing paragraph of this treatise which reads as follows:

N. P. N. Staff Photo

P. S. Tarbox

Allocation Difficult

AFTER discussing this subject with various refiners, we learn that in a large percentage of the smaller refineries and especially in the Pennsylvania field, it is absolutely impossible to charge the various departments with raw or semi-finished materials and again credit them with the total production received from each particular department, and it is for this very reason that in the work that we have done along this line we have entirely ignored this, feeling certain that our monthly percentage charts will show us quickly any excess loss and feeling certain that in this case a strenuous effort is always put forth to locate the departments in which this loss occurred.

I personally do not feel that this should prevent our attempting to ascertain operating costs, eliminating in our consideration, these particular items—of course where it could be accomplished, surely it would be of value.

Another item that is difficult to determine in many plants, is storage and pumping expenses, this we have eliminated in our consideration, but we believe without incurring much expense, that it is possible to arrive at a very accurate figure on steam costs and to make a reasonably accurate distribution to the various departments of the steam they use; based on the costs of boiler house operations.

And a month to month comparative cost in this department surely keeps everyone on his toes and is a real money saver.

Lost Time Check Valuable

IN still operations the accurate check of lost time is of immense value. You may feel that your superintendent is on the job every minute but when it is brought before you from month to month, you will soon find there are faults which can be corrected, and that you are going to be more vitally interested and more willing to listen to your men's suggestions.

First, if you find that too much time is being consumed in charging and emptying reducing stills, with this information before you, you can determine more intelligently whether or not you would be justified in increasing the size of lines and pumps.

If you find your delays from brick work are large, you will surely attempt to find whether the trouble is in the laying or the brick themselves and will ultimately correct or at least improve this. If it is steel or piping ends, this too is forced to your attention.

Again you have data which will determine for you very quickly combined with yields from materials, whether you are justified in rerunning some materials which may possibly occasion you a loss, or in other words, would be more profitably disposed of in the residuum state.

Number of Products Reduced

MANY refiners that a few years ago were making a large variety of different products are today making probably one-fifth as many grades. Whether this is wise or not, you certainly are better able to determine if you can determine costs even though they may not be 100 per cent accurate.

Again, the check on still fuels from month to month is certainly valuable information, and it is my opinion that those who have adopted this practice have found many more things of real value.

Under the plan proposed it is a comparatively easy manner to determine wax house costs. You can base your costs on either the total throughput or against the products whose values have been enhanced. In some instances, to our knowledge, the costs of operating wax house are based on finished wax,

finished neutrals, and other finished products. With this informtion, one is certainly better able to determine the price that he can pay for wax distillates, providing his capacity in this department is greater than the crude run will supply.

In filter houses, we have a very vexing problem in that numerous grades are run at the same time by the same force but by keeping accurate records of the number of filters of each—new, first, second, etc., burns, run even grade, comparing it at the end of the period with the products actually manufactured, you can arrive at a fairly accurate cost of filtering each product.

Burning Half of Cost

POSSIBLY those who have never calculated their filtering expense will find many surprises. It has been determined in some instances that 50 per cent of the filtering costs are in restoring the filtering medium and only about 25 per cent in the cost of the new clay or earth, and the other filtering department costs are only about 25 per cent.

During 1925, I think the margin between the price of 600 steam refined and 600 Oil City E. averaged about 2 cents per gallon, and personally I doubt if the average Pennsylvania refiner can filter his 600 steam refined to Oil City E. at a cost of less than 4 cents a gallon and in many instances the actual cost is in excess of this amount.

Again, the cost of filtering neutrals in our minds is not as great as the variation in price between the various colors would indicate. This does not necessarily apply to medium and heavy oils. Those of us who have been guessing at the cost of filtering kerosene, I believe have a surprise in store when we are able to arrive at actual costs, and your committee feels that these are questions worthy of your serious consideration.

Cracking Costs Kept

YOUR committee understands that it is quite universal among all refiners operating cracking plants to determine actual costs, possibly for the reason that formulas were given us or we worked out formuals at the time the plant was started. If this is valuable information in this department why is not the same information pertaining to other departments equally as valuable? If we would each attempt to determine departmental costs, and could, through some central source without each knowing where the information came from, determine whether our costs were above or below or on the average, it would certainly give each of us an opportunity to determine where we are efficient and where inefficient, which certainly would be valuable information.

Many refiners who have marketing departments feel the importance and do check marketing costs very closely. I wonder if you can conceive of any reason why this is more important than determining refinery costs.

Your committee members do not claim to be experts in cost accounting but feel the necessity of someone making a start, and we recognize full well that there is going to be vast improvements in the methods we suggest and earnestly solicit constructive criticism and cooperation in the hope that ultimately all may profit.

More Cracking Capacity Needed to Meet Future Motor Fuel Demands

By Charles L. Parmelee
Consulting Engineer, Woolworth Building, New York
Read before N. P. A. Convention, Cambridge Springs, Pa., April 16

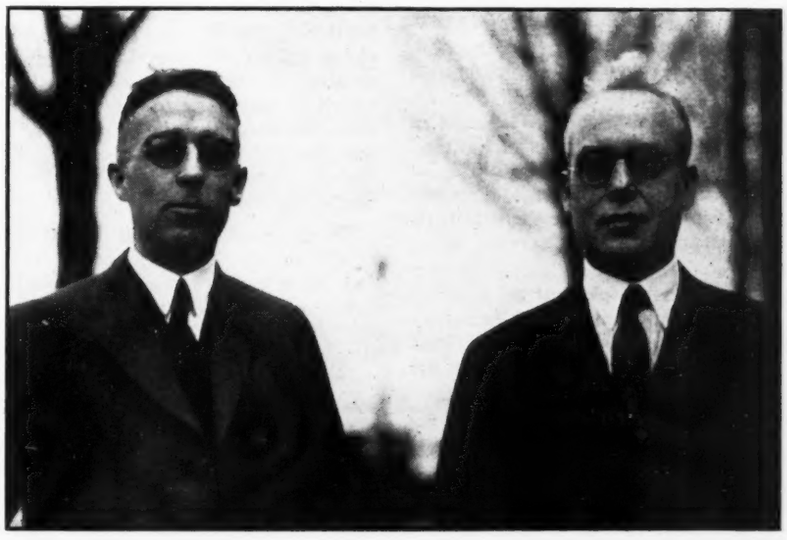
IT is commonly said that one of the difficulties with the petroleum refining industry in the United States is over capacity. While it is true that measured in gross barrels of possible output there is an apparent excess capacity, it is not true that there is an excess of adequate refining capacity. In fact, when the required finished products are considered, there is indicated an apparent shortage at the present time and for the near future, a large deficiency.

The first and fundamental factor controlling this situation is the character and amount of available raw material. In 1925, there was produced in the United States and imported a total of about 818,000,000 barrels of crude oil. Of this, about 10 per cent was not considered refinable by present processes. While there is little reason to expect any material change in the available supply this year, it is to be borne in mind that price incentive has heretofore and may again result in added supply and that under the urge of insufficiency of finished products, new means may be developed for the refining of these crudes now used as fuel oil.

The demand for motor fuel is steadily increasing. If the January-February 1926 figures are taken as a criterion, and for the past five years they have given a remarkably uniform guide to the year's consumption, the 1926 demand for domestic and export motor fuel will be about 320,000,000 barrels. Various estimates place the figure at from 280,000,000 to over 320,000,000, the latter being the estimate of one of the largest oil concerns in the world. A domestic and export consumption of 295,000,000 barrels in 1926 has been used in these computations as a very conservative figure.

The domestic demand for motor fuel in 1930 is estimated by the Committee of Eleven, A. P. I., as 315,000,000 barrels. If to this is added 40,000,000 barrels for export, the 1930 demand is indicated as about 355,000,000 barrels. This may be reached in very much less than four years.

The available supply of natural-gas gasoline, benzol and imports may be taken as 31,000,000 barrels for 1926 and



H. M. Carruth and Chas. McLean

—N. P. N. Staff Photo

Table No. 1—Indicated Conditions for 1926

DEMAND			SUPPLY				
			GROUP "B" REFINERIES			GROUP "A" REFINERIES (Alternatives)	
					Shortage	Skimming Only	Full Cracking
Motor Fuel Domestic	260,000,000						
Export	35,000,000		Number of Refineries	214			
Total		295,000,000					
Deduct:			Crude Capacity (per day)	2,028,000		396,000	212,000
Casing Head	25,000,000		Cracking Capacity (per day)	968,000		.....	212,000
Benzol	2,000,000		Crudes per year	629,000,000		123,000,000	62,000,000
Imports	4,000,000		Natural Gasoline per year	142,000,000		37,000,000	18,500,000
Total		31,000,000	Cracked Gasoline per year	85,000,000		.....	18,500,000
Refinery Gasoline Demand		264,000,000	Refinery Gasoline Supply	227,000,000	37,000,000	37,000,000	37,000,000
Kerosene		60,000,000	Kerosene	50,000,000	10,000,000	10,000,000	10,000,000
Diesel Engine Oil	15,000,000						
Lubricating Oils	30,000,000						
Wax	2,000,000						
Asphalts and Road Oils	20,000,000						
Misc. Refined Oils	8,000,000						
Total		75,000,000	Misc. Refined Oils	75,000,000	.....	.....	.....
Fresh Gas Oil	30,000,000						
Fresh Fuel Oil	150,000,000						
Total		180,000,000	Fresh Gas and Fuel Oil	66,000,000	114,000,000	72,000,000	.....
Gas and Fuel Oil Residuum Usable		180,000,000	Residuum, Gas and Fuel Oil	164,000,000	16,000,000	.....	11,000,000
			Coke Fuel and Loss	47,000,000		4,000,000	5,000,000

Note: All Quantities in 42 Gallon Barrels.

35,000,000 for 1930, leaving 264,000,000 and 320,000,000 as the indicated demand for petroleum motor fuel from U. S. refineries for these years.

Gasoline Yield 23 Per Cent

IN 1925 the average natural gasoline obtained from the crude oils run to stills was less than 23 per cent. The present indications are that the total available crude oil supply will be maintained only by increasing the heavy oil output. The supply of light oil appears to be steadily decreasing. If the heavy oils are refined, the percentage yield of natural gasoline will be reduced. There is, therefore, no reason to expect any increase in this yield from the crudes run in the next four years.

If sufficient crude oil of the same grade as run in 1925 was available and all of the refineries in the United States in operation Jan. 1, 1926 were operated at 85 per cent rating for the year, there would be produced about 180,000,000 barrels of natural gasoline and about 90,000,000 of cracked gasoline, or a total of about 270,000,000 barrels. This is less than 3 per cent in excess of a most conservative estimate of the demands for this year, and 16 per cent less than a very authoritative estimate. The possibility of this condition arising is affected by two major factors.

First, there is required about 795,000,000 barrels of refinable crude oil, or 7.4 per cent more than was run to stills in 1925, when 18,000,000 barrels of light oil was drawn from storage. The supply of refinable crude may be increased if the price justifies the cost, but there is little prospect of any material increase at an early date.

Second, under the present price structure a very large number of refineries have been and are operating at a loss. Several have been shut down since the first of the year.

Under present price conditions, no refinery that is not constructed and operated in the most effective manner can operate at a profit, and of such refineries only those that fall in one of three groups can show reasonable returns.

1. Those refineries which are classed as "Complete" and can adjust their output to those commodities which are most profitable.

2. Those refineries which by reason of crude supply, special products or established market can secure a better return than the average price differential.

3. Refineries equipped to produce the maximum possible gasoline yield from the crude.

The average skimming and topping plant can only operate at a loss today.

196 Skimming Plants

OF the refineries operating January 1, 1926, 196 of a capacity of about 697,000 barrels per day were classified as skimming and topping plants. Of these, 58 had cracking equipment of a charging capacity of about 163,000 barrels per day. Rating the economic crude capacity of these skimming plants as the same as the cracking capacity, omitting their excess capacity and including full capactiy for all other refineries, the total crude capacity indicated is about 629,000,000 barrels per year. This is the total economic crude capacity of the petroleum refineries in the United States under the present price structure, if all these refineries fall within the limitations above given. It is well known that many of them fail to meet the efficiency specification. These refineries can produce about 227,000,000 barrels of motor fuel, or about 37,000,000 barrels short of that which is necessary to meet a most conservative estimate of the apparent gasoline demand for this year, and 93,000,000 barrels short of that which may be needed in the very near future.

These conditions will result in the crude supply being absorbed to their full capacity by those plants which are most efficient, premiums being paid therefor, if necessary. The price structure will then change to encourage further crude production and to permit the operation of sufficient less economical plants to provide for the production of the necessary commodities. This will result in increased profits for the more efficient plants which will thus be encouraged to expand. The price structure will then adjust to something like its present ratio which will again put the inefficient plants on a non-profitable basis. This cycle will continue with the gradual elimination of all but highly efficient complete, specialty and gasoline plants except in a few instances where other conditions are especially favorable. If this elimination is permitted to take its full course there will be lost and duplicated a present investment of upwards of $70,000,000, a large part of which can and should be conserved.

Two tables have been prepared to show the indicated demand and supply under various conditions in 1926 and 1930, or earlier. All figures given are not absolute or exact. They are suggestive only and are subject to possible wide variations from the facts as ultimately developed. The limitation put on the possible production by shortage of crude must be borne in mind.

In the left hand section are given certain estimates of the probable demand. These require no explanation.

The refining capacity of the United States which was in operation Jan. 1, 1926 has been divided into two classes.

Group A. Skimming and topping plants in excess of the installed cracking capacity therein. Total capacity 534,372 barrels per day.

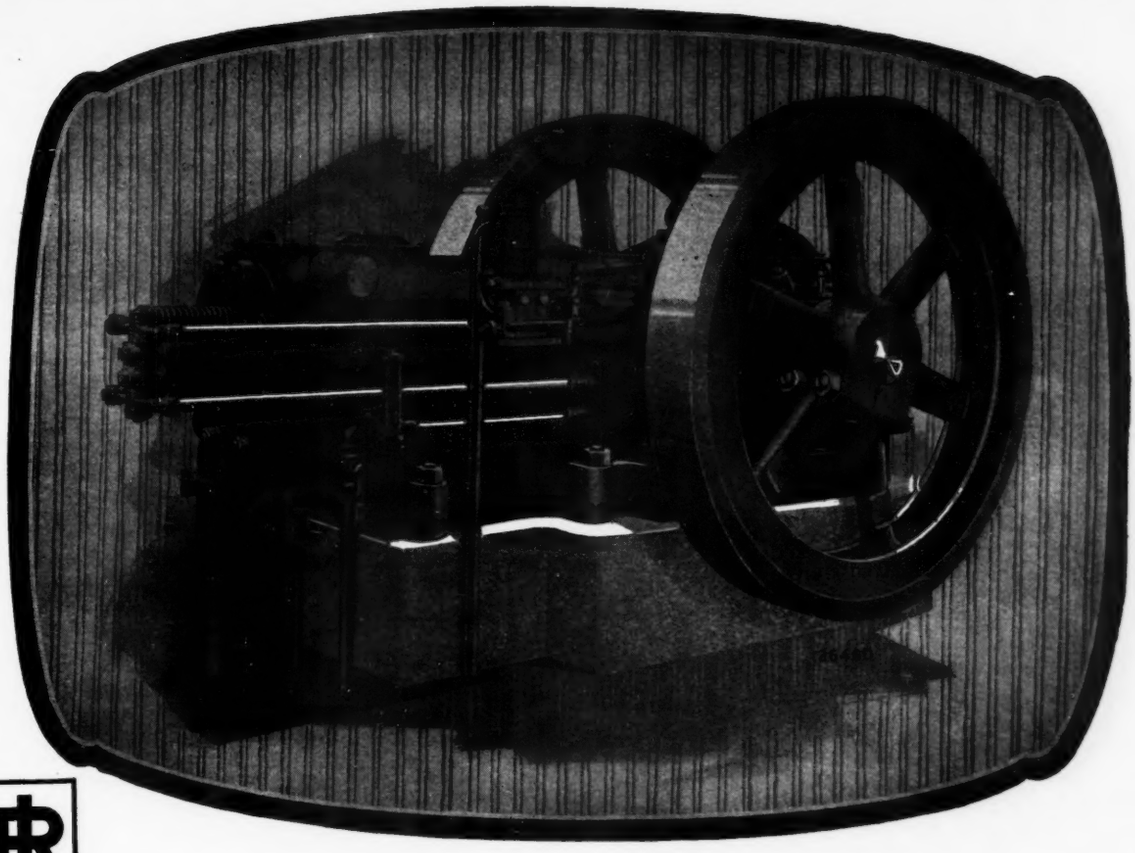
Group B. All other refineries. Total capacity 2,028,000 barrels per day.

Group B includes nearly all of the Pennsylvania and West Virginia refineries. They are assumed to have a special field by reason of their established market. As will be shown, there is ample demand for all the products of these refineries at full capacity, provided they are on an efficient basis. Insofar as they are abandoned, it will be necessary to supply equal capacity elsewhere.

Skimming Plants Must Operate

TABLE No. 1 shows that the refineries of the United States cannot supply the probable motor fuel demands for 1926, unless a considerable portion of the simple skimming and topping plants are operated. The kerosene shortage could be supplied by these refineries, but as it will be necessary to operate some of the skimming plants this amount could be most readily furnished by them.

Table No. 1 shows that to supply the motor fuel and kerosene demands, about



Reduce Your Power Costs

~ With an I-R Oil Engine ~

Ingersoll-Rand Oil Engines are of the four-cycle, direct-injection type. They burn any fuel oil that can be used in any other Diesel engine.

The horizontal single-cylinder Type "PO" engines illustrated, are built in 50, 100 and 150 B.H.P. sizes.

The vertical multi-cylinder Type "PR" engines are available in popular sizes from 105 to 1200 B.H.P.

Detailed information on request.

Using fuel oil costing 6c. per gallon, an Ingersoll-Rand Oil Engine will deliver power continuously for a fuel cost of less than 40c. per 100 horsepower hours.

Compare this with your present power costs.

And—the Ingersoll-Rand Oil Engine is reliable. The number of units installed in the various industries is conclusive evidence.

In many cases a reduction in the cost of power means the difference between a profit and a loss. An Ingersoll-Rand Oil Engine may be the means of your making greater profits.

INGERSOLL-RAND COMPANY—11 BROADWAY, NEW YORK CITY.

Offices in principal cities the world over

FOR CANADA REFER-CANADIAN INGERSOLL-RAND CO. LIMITED, 260 ST. JAMES STREET, MONTREAL, QUEBEC.

67-80E

Ingersoll-Rand

Table No. 2—Indicated Conditions for 1930

DEMAND			SUPPLY				
			GROUP "B" REFINERIES			GROUP "A" REFINERIES (Alternatives)	
					Shortage	Skimming Only	Full Cracking
Motor Fuel Domestic	315,000,000						
Export	40,000,000		Number of Refineries	214			
Total		355,000,000					
Deduct:			Crude Capacity (per day)	2,028,000		1,000,000	530,000
Casing Head	30,000,000		Cracking Capacity (per day)	968,000		.....	.....
Benzol	3,000,000		Crudes per year	629,000,000		310,000,000	155,000,000
Imports	2,000,000		Natural Gasoline per year	142,000,000		93,000,000	46,500,000
Total		35,000,000	Cracked Gasoline per year	85,000,000		.....	46,500,000
Refinery Gasoline Demand		320,000,000	Refinery Gasoline Supply	227,000,000	93,000,000	93,000,000	93,000,000
Kerosene		60,000,000	Kerosene	50,000,000	10,000,000	10,000,000	10,000,000
Diesel Engine Oil	30,000,000						
Lubricating Oils	35,000,000						
Wax	2,000,000						
Asphalts and Road Oils	20,000,000						
Misc. Refined Oils	8,000,000						
Total		95,000,000	Misc. Refined Oils	95,000,000	.....	.....	.....
Fresh Gas Oil	30,000,000						
Fresh Fuel Oil	150,000,000						
Total		180,000,000	Fresh Gas and Fuel Oil	46,000,000	134,000,000	198,000,000	.....
Gas and Fuel Oil Residuum Usable		180,000,000	Residuum, Gas and Fuel Oil	164,000,000	16,000,000	.....	40,000,000
			Coke, Fuel and Loss	47,000,000		9,000,000	12,000,000

Note: All Quantities in 42 Gallon Barrels.

73 per cent of the capacity of the plain skimming and topping plants will have to be operated, if operating on selected crudes yielding 30 per cent natural gasoline. By running about 123,000,000 barrels of 30 per cent gasoline crude in such plants, the necessary motor fuel and kerosene can be obtained.

The combined refinery operations have indicated call for 752,000,000 barrels of crude oil per year, or about 17,000,000 barrels more than the n ew crude, refinable by present methods, available in 1925. The indicated shortage will result in changes in price structure and withdrawals from stocks of crude and motor fuel. Price structure changes may temporarily encourage operations of additional skimming plants.

It is the spasmodic and irrational operations of the smaller skimming plants that has resulted in over-production of finished products and in serious disturbances in the industry. Insofar as the laws of supply and demand will permit, no encouragement can be expected from the larger operators toward any change in the price structure which will warrant such operations. Of the skimming plant capacity in excess of the cracking capacity (Group A), the major refining concerns own or control about 40 per cent.

While no great increase in cracking capacity can be expected this year, it is to be noted, as shown in last column of Table No. 1, that if full cracking plant capacity is installed by the addition of 212,000 barrels capacity (about 22 per cent increase of present cracking capacity) about 40 per cent of the capacity of skimming plants not now so equipped is required to provide the motor fuel and kerosene apparently needed.

Table No. 2 shows the same data as applied to 1930 using the motor fuel estimate of the Committee of Thirteen A.P.I. as a starting point. If the present estimates of highly competent and well informed statisticians in this industry are correct, the conditions indicated for 1930 may be met within the next year or two.

This table shows that it would require about 187 per cent of the skimming plant capacity in operation January 1, 1926 to meet the motor fuel demand. If all these plants were improved by the installation of full cracking capacity, their motor fuel output would just about equal the demand.

Crude Limitations

THESE figures, however, encounter the probable crude limitation. If only 735,000,000 barrels of new refinable crude are available as in 1925, the maximum amount available for skimming or added cracking is only 106,000,000 barrels. This would permit the operation of only 64 per cent of the skimming plant capacity operating Jan. 1, 1926, whereas 187 per cent is required. Such an amount of crude oil, if run for 60 per cent gasoline production, would permit operation of 68 per cent of the capacity of these skimming plants and leave a shortage of about 29,000,000 barrels of motor fuel per year. Any shortage of this kind will be met by increased cracking at the more complete refineries at the expense of the available supply of fresh gas and fuel oil, lubricating stocks and waxes. To do this, however, these refineries require the same added cracking capacity as is needed in the minor plants.

As stated above, such figures are in no ways accurate. They indicate strongly, however, the opportunity for refineries in the United States which are placed on an efficient basis. There is no reason why the majority cannot be so placed so far as knowledge and available equipment are concerned. The entire crude capacity of the refineries included in Group B is absorbed in the output above indicated. If the skimming plants are not equipped to meet the demands, or if refineries included in Group B are not made and kept efficient, the necessary facilities will be added to the other refineries.

There is now needed skimming plant capacity of 396,000 barrels per day. If such plants could be improved by full cracking capacity, a crude capacity of 212,000 barrels per day is needed now. The available crude supply will apparently limit the usable future capacity to about 365,000 barrels per day with full cracking capacity. If so improved, there will be conserved a present investment of about $40,000,000, a large part of which if not made fully effective will be duplicated very soon and an early replacement of about $30,000,000 more, if existing plants are not brought up to date. Needless to say, it is not possible to save all of this investment because of lack of crude, faulty location, condition of plants or other controlling reasons. A large part of it can and should be saved and used as a basis for re-organization of existing properties. Such re-organization plans must include a definite arrangement for crude supply.

In connection with the gas and fuel oil supply and demand, there is a large element of uncertainty. If all the refineries of the United States were equipped for maximum gasoline production, there would be no fresh gas oil or fuel oil available from refinery operations. The tables show the supplies that might be available under different conditions. It is difficult to say how great the future need for such commodities may be. It will be largely affected by the price. The conditions vary greatly in different parts of the country. A large amount of the imported oil and a considerable portion of the domestic crude is not readily refinable with present methods, and in 1925 about 57,000,000 barrels of crude was burned as fuel. How soon any appreciable part of this heavy oil will be refined is now uncertain, but it is probable that ways will be developed as the need becomes urgent.

The market for special high grade commodities such as can be most advantageously produced by Pennsylvania refineries can and will be supplied by the most efficient concerns. The future of the Pennsylvania refineries can only be protected by their being placed and maintained on a basis of the highest efficiency and economy. There is ample indication of a growing demand for all of their refined products. As the shortage of motor fuel develops, the value of available cracking stock will increase. This will result in increased values for lubricants independent of any increase in the demand for such products.

Suggests State Enter Gasoline Business By Building Seaboard Storage

By V. B. Guthrie
N. P. N. Managing Editor

RICHMOND, VA.

THE suggestion that the state of Virginia establish seaboard storage and act as a source of supply for the Independent jobbers and local dealers, who are now cut off from an Independent refinery source of supply by market conditions and have to depend on the big companies for their gasoline, was placed before Gov. Harry F. Byrd recently in a letter from J. B. Belk, Albemarle Oil & Gas Co., Inc., Charlottesville.

Portions of Mr. Belk's letter to the governor were published in a Richmond newspaper, and considerable comment developed in newspaper columns. The governor himself to date has said nothing on this suggestion.

When the additional gasoline tax of a cent and a half a gallon went into effect March 10, on top of the old tax of 3 cents in Virginia, word came to the governor, the old companies were increasing their retail prices 2 cents, an extra half cent above the addition to the gasoline tax.

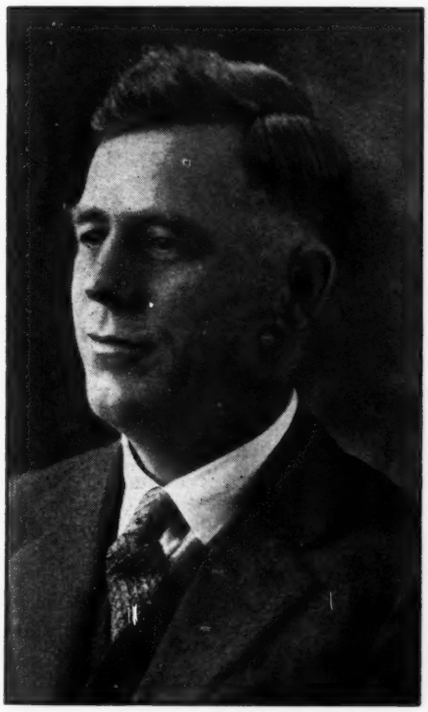
Says He Will Publish Prices

This brought a threat from Gov. Byrd to publish in the newspapers the wholesale prices at which the local dealers could buy from the big companies and, along with that, the retail price local dealers throughout the state were charging, and let the public be the judge as to whether there was any undue profit for the retailing company. The governor was going to get the information as to retail prices from the various state officials in each county.

Talk of this move died out, however, when Gov. Byrd discovered that most of the oil companies, the Standard Oil Co. of New Jersey among them, had only increased their retail prices by the cent and a half of the tax and that, in fact, some companies had only increased their price 1 cent.

Gov. Byrd was nettled in the first place by the extra half cent of the gasoline tax the legislature tacked on. He was willing to have an increase of 1 cent, making the total tax 4 cents. The legislature, however, hung out for an extra half cent, to go to the counties, under the threat of passing a county license tax on motor vehicles unless the counties had financial relief in some other form. When he got the idea the oil companies were adding on another half cent to the price above the gas tax that was just adding fuel to the flames.

Gov. Byrd only came into office last February, but even before the matter of the gasoline tax came up he had already given the oil industry some thought. Last summer, when he was campaigning for election, he talked around the state of the unfair margin in gasoline prices. This was just at the time the refinery market had started to slide off because of the influx of California gasoline to the Atlantic seaboard and before retail prices had dropped.



J. B. Belk
Head of Albemarle Oil & Gas Co., Charlottesville, Va., who suggested to Gov. Byrd of that state that the state establish seaboard storage to give the local jobbers inland a source of gasoline supply independent of the big companies.

One suggestion Gov. Byrd had for the oil industry immediately after he came into office was the drawing of specifications for motor oils and imposing a tax of 10 cents a gallon on all oil sold within the state. Heads of the oil companies showed him the difficulties in drawing a set of specifications which would keep poor oil out and let in all good oil and told him imposing a sales tax would encourage shipping into the state oils of inferior qualities under various subterfuges.

There is no inspection of either gasoline or kerosene in Virginia now; but Gov. Byrd considered asking the legislature to adopt specifications calling for the sale of U. S. Motor gasoline or better and building up an inspection force. Again the oil companies showed him they were then selling gasoline up to navy specifications or better, without any inspection, and that the expense of anything like real inspection of all the gasoline entering the state would be tremendous.

Leading oil men of the state say that Gov. Byrd has called them into his office for the facts about the oil business, and that he shows the understanding of business principles which might be expected from a man who has himself been successful beyond the average in business. The Byrds are a long established family in business and politics in the state. The present Governor Byrd is the owner of two daily newspapers, the Evening Star, of Winchester, and the Harrisonburg News, of Harrisonburg.

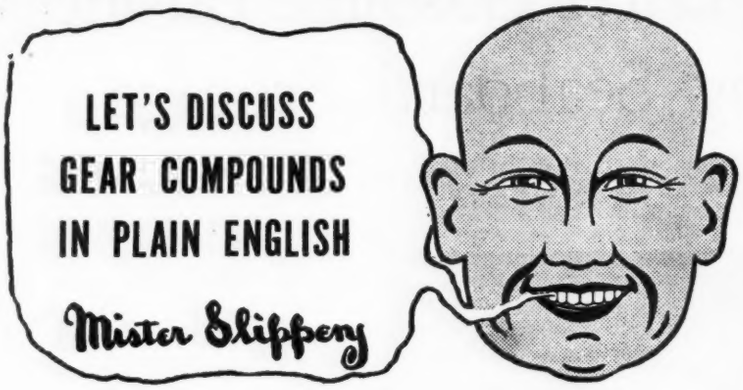
He is also said to be the biggest raiser of apples east of the Mississippi, and to grow an eighth of all the apples raised in Virginia, operating extensive cold storage plants at Winchester in connection with his fruit raising. The story is told that, when he started raising apples, he planted eight orchards on slopes facing different directions on the hills of his estate, instead of planting one big orchard. Thus, whatever the nature and direction of the prevailing winds of the season, he is assured good crops in some of his orchards.

Wants to Start Discussion

Mr. Belk, of Charlottesville, who has known Gov. Byrd for a good many years says his letter of March 28 suggesting the state build ocean terminals and enter the wholesale gasoline market buying in tank car lots at either Gulf Coast points or in California and selling in tank cars to dealers in the state, was meant more to start thought on the part of the dealers in the state on the possibilities of some co-operative move, than with any idea of starting the state in the oil business.

This condition which has made the local jobbers in Virginia depend almost entirely on the big companies for their gasoline supply, and has removed the chance of their purchasing from the Mid-Continent refinery market, applies also to the states along the Atlantic seaboard to the south of Virginia. Through seaboard terminals at advantageous points along this coast, the Standard of New Jersey, Sinclair Refining, The Texas Co., Gulf Refining Co., American Oil Co., subsidiary of the Pan American interests, bring in gasoline in tanker lots, from Gulf refineries or California, and ship inland in tank cars.

While there is a seaboard tank car market for gasoline, especially at northern points along the Atlantic coast, the big companies practically without ex-



You've seen stuff sold as gear compound that's practically useless for the purpose. It's so plastic that the gears cut channels through it and thereafter get no lubrication at all. As a gear compound, it's a joke and a rather expensive one sometimes.

ADVANCE Gearene is exceedingly stringy and fibrous. It clings to the gears and is an **efficient lubricant** all the time. It won't harden and cease to flow in cold weather nor will it melt and leak out in hot weather.

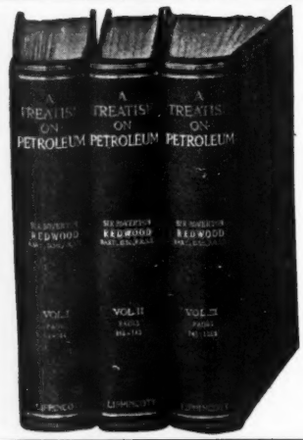
You, too, will find **ADVANCE Gearene** an extraordinary lubricant. If you have not tried it, we'll be glad to send you samples. Just drop us a line and let us know who wants them and where to send them.

America's Greatest Grease Makers

AMERICAN OIL CORPORATION · · Jackson, Mich.

ADVANCE Gearene

and High Pressure Lubricating Grease



Information on all branches of the petroleum industry is to be found in the 4th edition of A TREATISE ON PETROLEUM by Sir Boverton Redwood.

To obtain this valuable set make your check for $39 payable to

NATIONAL PETROLEUM NEWS
811 Caxton Bldg. Cleveland, Ohio

ception sell to the jobbing trade on the basis of the tank wagon market. As these same companies control the open tank wagon market, the inland marketers feel that the prices on which they must buy and the prices on which they can sell are both fixed by the same group of companies. Some of these jobbers believe there is agreement between the big companies as to prices.

Shut Out of Mid-Continent

The development of this seaboard wholesale market, however, through the low cost of water transportation, has made it impossible for the Independent jobber in Virginia to buy in the Mid-Continent refinery market and sell at the retail prices prevailing in the state without losing money. The freight rate from the Mid-Continent market to Virginia points varies from 4½ to 5¼ cents a gallon. It would cost the marketer there around 15 cents to put Mid-Continent gasoline on his siding; while he can buy from one of the companies with seaboard storage at from 3 to 3.5 cents under the 17-cent tank wagon market laid down. This is not a temporary condition, either.

While inland distributors in Virginia all buy on the basis of so much below the tank wagon price, the conditions differ for different companies. Sales on the open market at present seem to be mostly at 3 cents under the tank wagon market laid down. Contracts run from 3 to 4 cents, with varying conditions as to stopping points. One company has been giving contracts at 4 cents margin, which terminate if the tank wagon market goes to 15 cents. Another 3-cent marginal contract drops to 2.75 cents when the tank wagon market is 14 cents to 12.50, and 2.5 cents when the tank wagon price is from 12.5 to 11.5 cents.

Mr. Belk has the idea that the Independent portion of the industry should recognize this situation and provide some way for handling Gulf or California gasoline by water to serve the inland jobbers of Virginia and other states. He asked why a group of Mid-Continent refiners could not build water terminals, secure tankers, and find an outlet for part of the gasoline from their plants by shipping by rail to the Gulf and then by tanker to southern Atlantic seaboard points. He also suggested the National Petroleum Marketer's Association build the terminals, rent or buy a few tankers, and buy gasoline in whatever market was cheapest, to serve the Independent industry in the southeast.

Accuses Wrong Companies

When Gov. Byrd, in threatening to publish wholesale and retail prices of gasoline to see if undue profits were being made, accused the retail dealers of raising their prices 2 cents, when the extra cent and a half tax went into effect, Mr. Belk wrote to tell the governor he was wrong in placing any responsibility for prices on the retailer or tank wagon distributor even, and told how the big companies controlled the situation.

Mr. Belk criticized the method by which the Standard makes a flat tank wagon price for the state disregarding the cost of freight from seaboard to inland points.

He charged that the big companies make concessions below posted prices at points where there is Independent competition, for the purpose of destroying that competition, but kept to the open prices at other points. On the possibility of the state building seaboard terminals, Mr. Belk said:

Mr. Belk's Letter

"In the United States there are over 500 refineries, most of them located in what is known as the Mid-Continent, Texas, Oklahoma, and Kansas fields. The freight rates to Virginia points are from 68 to 72 cents per 100 pounds, or 4½ to 5½ cents per gallon. This is the source of supply for the Independent dealers. They are forced to pay these exorbitant freight rates, due to the fact that the Independent distributors in Virginia have not the volume or the capital to build ocean terminals and compete by bringing in goods by water.

"Wherever this rate is attacked by the refiner or Independent dealers as unfair you will always find the large oil companies in the east opposing the reduction because, if you lower these rates, it places the Independent dealer in a very advantageous position. It enables them to lower the price of the commodities, which is considered the unpardonable sin by the large companies.

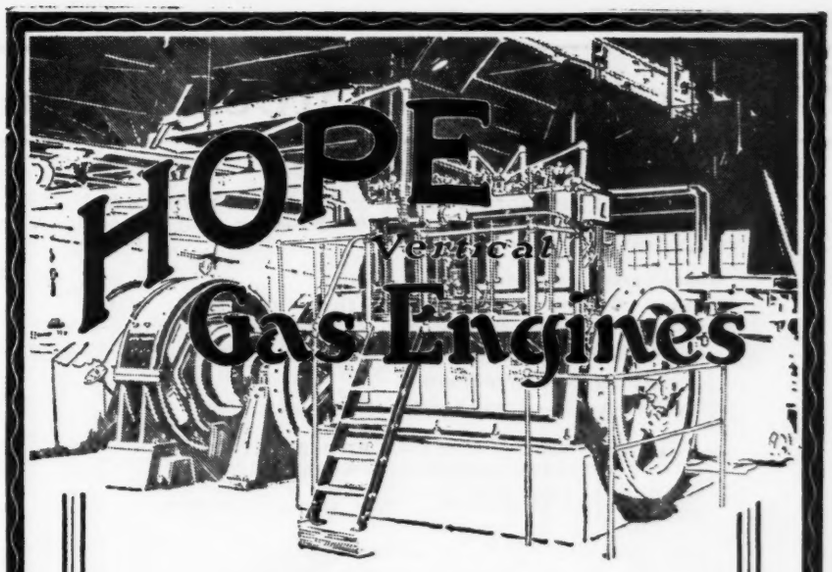
"Their only relief is a concentrated effort from all over the state to lower the exorbitant freight rates from this great source of supply. If it were possible I would suggest that the state of Virginia build ocean terminals, buy a supply of tank cars and go into the oil business itself, in order to get relief from the trust that has successfully strangled competition to the present time.

"Otherwise, as I see it, our congress will have to enact laws to make large pipe lines common carriers and to operate under the direction of our interstate commerce commission just as our railroads and to keep a more watchful eye upon the great oil mergers that are now taking place under the present national administration which, if allowed to continue, within a short time will become the greatest monopoly and trust in the world controlled by two or three men."

How He Got Into Business

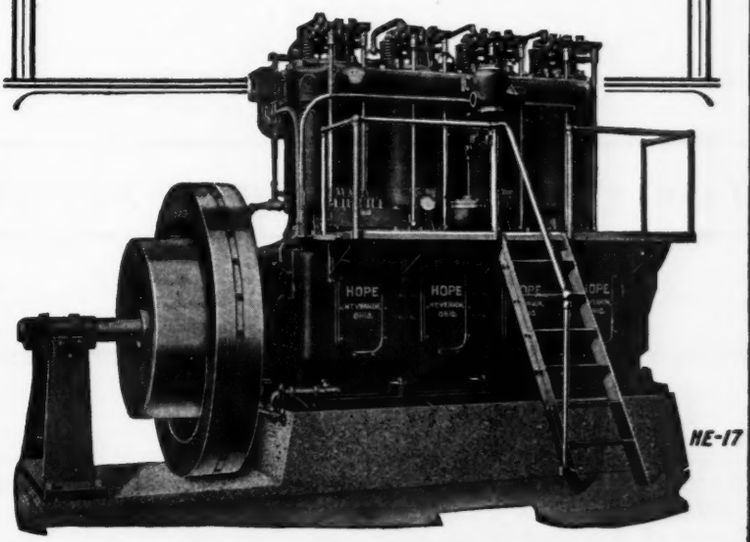
Mr. Belk says he got into the oil business for spite mostly, and he has been a stormy petrel of the business in Virginia, as far as the local politicians in his home town of Charlottesville are concerned. His early days he described about as follows:

"I was down in Oklahoma laying pipe and seeing the country back in about 1907, when I got a chance to sell gasoline pumps and I found business good in the southeast, so I made that mostly my territory," he said. "Then the Standard



Rugged, power-full simplicity is the outstanding feature of these super-power engines. They are equal to every emergency—they will not disappoint. Under the long, hard drive of steady service, HOPE Dependability stands out and maintains the performance which satisfies, first and last. If your need is for economy combined with reliability and rugged compactness, a HOPE Vertical will satisfy it.

Write for Detailed Specifications.



ENGINEERS
CONTRACTORS

HOPE
Engineering & Supply
COMPANY

DESIGNERS
MANUFACTURERS

MT. VERNON, OHIO, U. S. A.

Edward Forged Steel Valves

—the best valve for refinery service.

Designed and built for service up to 500 pounds pressure and intermittent temperature to 1100° F.—they will fit any requirement.

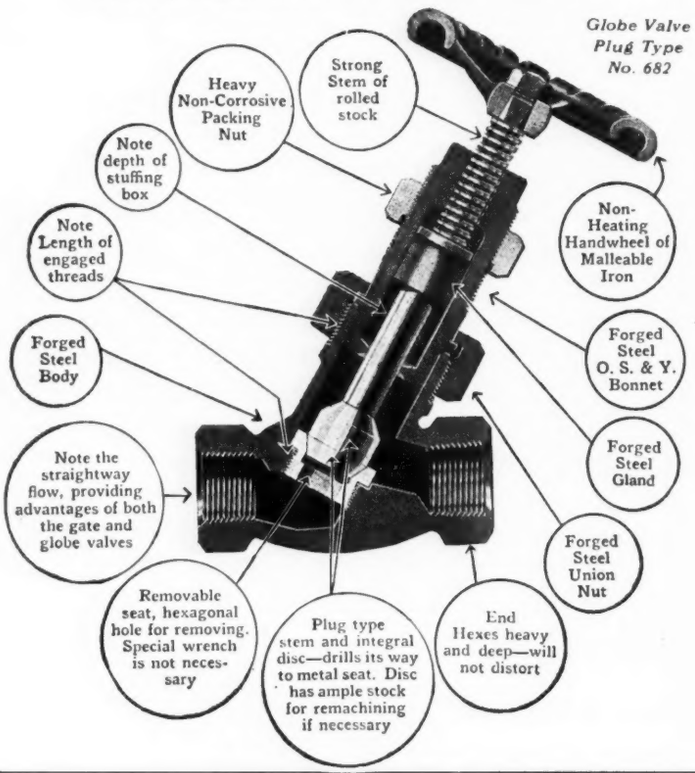
—low in price—standardize on them

Because of quantity production, these high grade valves are priced remarkably low and can be used anywhere—effecting a highly efficient service at an economical cost.

—prompt shipment from stock

Globe and Angle—from ¼" to 2" inclusive.

The Edward Valve & Manufacturing Co.
Main Office and Works, East Chicago, Ind.
Maintenance Engineering Corp., 1802 Conti St., Houston, Tex.
Power Plant Equipment Co., 123 W. 1st St., Tulsa, Okla.


Globe Valve
Plug Type
No. 682
Heavy Non-Corrosive Packing Nut
Strong Stem of rolled stock
Note depth of stuffing box
Note Length of engaged threads
Non-Heating Handwheel of Malleable Iron
Forged Steel Body
Forged Steel O. S. & Y. Bonnet
Note the straightway flow, providing advantages of both the gate and globe valves
Forged Steel Gland
Forged Steel Union Nut
Removable seat, hexagonal hole for removing. Special wrench is not necessary
Plug type stem and integral disc—drills its way to metal seat. Disc has ample stock for remachining if necessary
End Hexes heavy and deep—will not distort

—for every refinery service

REFINING

Reliable information on every phase of modern American refinery practice is to be found in the book prepared by H. S. Bell, and called AMERICAN PETROLEUM REFINING.

Some of the chapter headings are: Refinery Site and General Arrangement; Stills; Cracking; Cold Settling; Compounding; Storage of Oil; Bulk Transportation; and Fire Protection.

The cost of AMERICAN PETROLEUM REFINING is only $5. Just mail your check today to—

National Petroleum News
833 Caxton Building **Cleveland, Ohio**

and other big companies started giving pumps and tanks away. That put a stop to my selling many pumps.

"So I set out to get two or three or a group of individuals to start out in the oil business and then sold them their storage equipment, pumps and so on. I set up some people in the oil business that have made a lot of money.

"Finally I decided to go into the business myself. I flipped a coin to decide between a point where I wanted to go and a place my wife liked, and Charlottesville won—or rather lost. Anyhow I started up there."

Mr. Belk likes to tell of his experiences with the city commissioners of Charlottesville who tried to oust him from his main location. He says they served him with 295 warrants at one time charging violation of one statute or another.

Parts of the letter from Mr. Belk to Gov. Byrd were published in the Richmond Times-Dispatch. Mr. Berkeley Williams, investment banker of Richmond, and a director in the Derby Oil Co. of Wichita, Kan., replied at length in a letter to the same newspaper. He challenged Mr. Belk to name another manufactured article maintained at such a high standard and distributed on so narrow a margin of profit as gasoline, and also to name another commodity that bears a sales tax of 20 per cent of its retail price. Mr. Williams set forth the number of refineries closed down and described conditions under which the oil industry has operated the past few years.

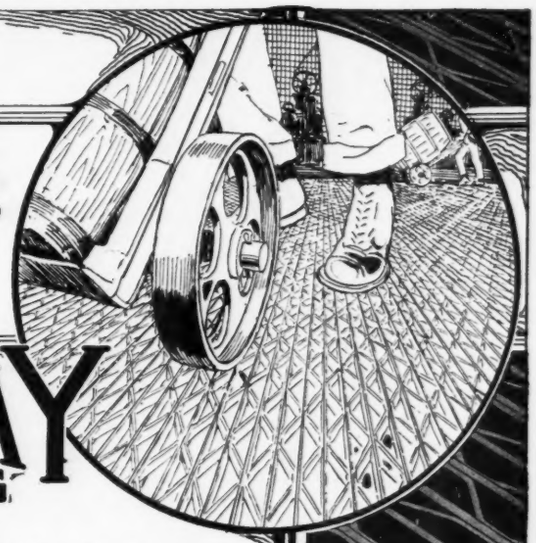
"If the state is going into the oil business, let it also go into the fuel, house furnishing, building material, farm products, packing, sugar, butter, eggs, milk, clothing and every other essential commodity business," said Mr. Williams in his letter. He urged the representatives of the principal oil companies marketing in the state to present the facts concerning the business to the public through the newspapers, in talks and in other ways possible.

H. F. Stoke, of the Stoke Battery & Armature Works & Gas., Roanoke, got after Gov. Byrd when he advocated publishing prices at which the oil companies bought their gasoline. He and the governor had some correspondence back and forth.

"I asked him why single out gasoline prices to publish openly," Mr. Stoke said. "Why not publish wholesasle prices of shoes, groceries, even the cost of raising apples, in which business Gov. Byrd is himself interested. He first said gasoline was a public necessity and consequently in a different class from commodities generally. Gov. Byrd finally admitted that, if the retail price was only advanced a cent and a half when the tax of that amount went into effect, he was not much interested in publishing prices any way."

LAWRENCEVILLE, ILL.—Indian Refining Co. has begun the construction of its second 6000 barrel pipe still and will start construction of the third one soon.

Smooth as Concrete, Strong as Steel



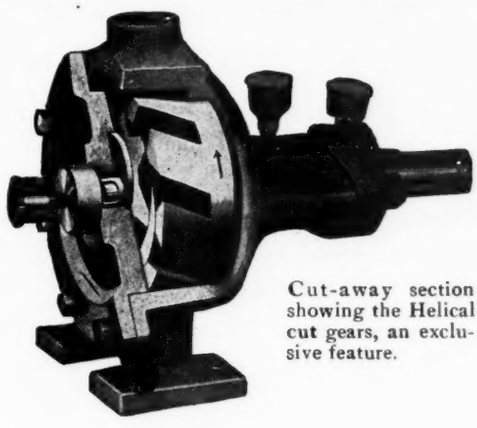
IRVING PATENTED SUBWAY FLOORING

You want a strong, durable flooring in your plant, of course. And you cannot place too much importance on providing underfoot comfort and safety for your men. *"Irving Subway"* solves both problems. It is non-slipping, always. And it is so durable, so time-proof and wear-proof, that its first cost is its one and only cost.

Deliveries? We're ready to serve you promptly, in any quantity you need.

Let us send catalog 4A-58.

IRVING IRON WORKS CO.
LONG ISLAND CITY, N.Y. U.S.A.



Cut-away section showing the Helical cut gears, an exclusive feature.

TYPE 6—A Twin Gear Drive unloading Pump with Motor

The Perfection Rotary Pump with the Shearing Cut

The teeth of the rotor in the Perfection Rotary Pump work like a pair of scissors on an angle instead of head on like so many splashing buckets.

Because there is no shock or strain it runs more smoothly and delivers a uniform flow. It is the ideal pump for unloading oil or gas. Made in various sizes and with various hook-ups.

Write for catalog and prices.

Perfection Manufacturing Company
2194 East Hennepin Ave. **Minneapolis, Minn.**

ON WITH THE DANCE, BE IT CRUDE OR REFINED

We See By The Papers—

Conscious and unconscious humor concerning the oil industry from the press of the nation.

National Petroleum News

"Offsetting Sidewinder No. 1"

A little known kind of oil industry is described in the Russellville, Ky., Democrat:

Rattlesnake oil at $100 a gallon has brought a new industry to Cisco section of Texas. Cisco long has been known as an oil center, but this is an entirely new phase of the business. The oil is used for medicine.

This is the time for harvesting the rattlesnake crop, because the rattlers are dormant. A keen eye and a quantity of dynamite are required. Search is made among the hills for a den of rattlers. The den is dynamited and the snakes are brought out. They are then rendered into oil.

One snake produces only a small quantity, but sometimes several hundred snakes are found in one den.

Locating Near the Customer

In the Cody, Wyo., Enterprise was published the item about the Red Top Filling Station. First, thought we, it is a good business move to put the fil'ing station across from the taxidermist, as the latter will then fuel his taxis at the new station. Then, we decided if a muckraking editor were real bright, he could make a swell joke about the "skin" games getting close together. Never mind, here's the item:

The Red Top Filling Station, which is owned and operated by Verl C. Buchanan, is to be moved one block east on Sheridan avenue, and is to be located directly across the street from the Will Richard Taxidermist Shop. The work of moving will probably start this week.

Ballinger's Mystery

The Ballinger, Tex., Ledger professes not to know, but we'd guess he was there on oil business:

E. E. Hundley, representative of the Lucas Oil & Refining Co., of Dallas, was here this week. He did not make his business known to newspaper men, but talked oil development in this section of the State. "We know that there is oil in this country somewhere," declared Mr. Hundley, as he drew a line across the map of Runnels county, "and somebody will find it."

Boys, You Should be More Open

The Indicator, Pueblo, Colo., gives its impression of a scout:

They conceal their identity as far as they are able, and they find out all they can by conversation and observation, and they then report to their respective companies. They hover about the hotels, rooming houses, pool halls, cigar stores, and they buttonhole people on the sly, and they get all they can get as slyly as they can.

Reference is made to oil scouts and "lease hounds," as those who lease land and sell at a profit are sometimes called.

Oil concerns and individual oil men have a hunch that something big is to be found somewhere around Pueblo and they wish to be in on the deal. It is as interesting as the hunt for Captain Kidd's buried treasure.

We Meet Him Each Sunday

The Times, Warren, Pa., sings a gentle lay of Spring:

With the advent of the warm spring and summer days will come the desire to wander, to travel the "Friendly Road." The laborer who works hard during the week will be seized with the Nomadic lure on Sundays and will start out for a long drive, caring little where he goes, or when he gets back.

Hades: Here are More Good Intentions

Pueblo, Colo., Indicator, tells what the oil companies intended to do and what they did:

Some time ago two of the largest oil companies came into the Pueblo field and gave it out that they intended to drill a few oil wells, but as it turned out, they drilled a pair of water wells and then pulled up stakes and left the country.

The Editor's Viewpoint

National Petroleum News

Correction of Physical Defects Aided

THE Standard Oil Co. (California) is now entering upon the seventh annual physical examination of its employees, according to Dr. Lewis P. Howe, its chief surgeon, writing in the company publication called "Among Ourselves." The first general physical examination of employees was made by the company in 1920.

At that time, according to Dr. Howe, 31.88 per cent of the employees showed some physical defect. The great majority of the defects, however, were described as being of minor nature, such as defective teeth, tonsils and vision. Through the co-operation of department managers, employees and examining physicians, the physical defects have been reduced to 7.91 per cent, as shown by statistics at the end of 1925.

Dr. Howe draws a health analogy from the Safety movement, wherein the employee is taught to use reasonable precautions and to train himself in thinking Safety automatically. If the employee will use similarly applicable precautions regarding his health and will give attention to the ordinary common-sense rules of hygiene, he will enjoy better health and in many instances, will avoid serious sickness.

The health work, which is applicable throughout the organization, among field forces as well as office workers, has been entirely directed toward guiding employees to better health; the company has never done more than to encourage correction of physical defects.—P. W.

The Oil Inspection Fight

MICHIGAN Independent Oil Jobbers are certainly to be highly commended for their proposed effort to knock out the archaic oil inspection law of that state.

The attack is to be made in the courts on the ground that the inspection at present produces a profit, contrary to the U. S. constitution, which forbids exercise of police powers for revenue purposes.

However, after the law is knocked out in the courts, the Michigan jobbers should be prepared to stand by and keep their legislature from enacting another which will be legal and which can easily be done, as it has been done in other states.

Oil inspection has no merit and has not had for a quarter of a century. Looking back from our present knowledge we wonder if it ever had any merit. It was designed to keep the oil industry from selling such a volatile kerosene that it would explode a lamp. We now can appreciate that it is not to be wondered at that, with a score or more million people of all degrees of intelligence, using one to three or four kerosene lamps every night in the year, there were a few accidents, regardless how non-volatile the oil.

Accidents from the use of kerosene decreased as gas and electricity took the place of lamps and lanterns. Most of the readers of this comment can remember the kerosene lamps in their own homes; can remember how children filled and lighted them, walked around with them; how if it was a cold night the lamp was filled in the house, perhaps without putting out the flame; and how in the morning a few squirts of kerosene into the fire box of the kitchen stove certainly made her hump when you applied the match. If the rattle of all the stove lids of a frosty morning, when she "boomed" from the oil, could be collected in one grand chorus it would be heard over many states.

In fact, to make a confession, when your parents were elsewhere, it became quite a sporting proposition to see just how high you could lift those stove lids, particularly the ones way back against the smoke pipe on one of those big ranges. The wonder was young America lived to tell the tale, to say nothing of this editor safely ducking a flying lid or two.

The oil industry will have to get over the almost complete disappearance of kerosene as an illuminant for the home, and then show conclusively that any inflammable liquid that is suitable for burning in a lamp is dangerous for use in starting a fire; not dangerous perhaps if properly used by a trained scientist aided with a laboratory full of equipment, but dangerous for the average man and woman who are the ones who use oil for starting fires.

The oil industry cannot make any product that will thus start fires and guarantee it to be foolproof.

In the last analysis, however, oil inspection is not a safety measure, but a political contrivance to keep men on the state's payroll. Every politician in the state of Michigan and everywhere else in this land of the free, will be openly or secretly working against the Michigan oil men's effort to knock out inspection, because they don't like to be deprived of even a tiny bit of their bread and butter.

They will weep much about the dear public, but it's their jobs they are really fighting for.—W. C. P.

Won Their Places By Merit

THE most striking thing of the oil industry—and we purposely use the superlative—is the way the officers of the larger oil companies rise to the top on merit and are not pulled up as fathers' sons.

Right off hand we can't recall but one higher official of a big oil company whose father had as high or higher rank than he, and that father has been dead many years and was in no financial position to influence for his son any more than thousands of the company's stockholders.

Practically all the higher officers of these big companies started from scratch, poor, unknown, without special education in most instances, and without the remotest chance or suspicion of a pull anywhere.

These remarks are prompted by the advancement of another one of these "scratch" men to a presidency, R. C. Holmes, the new president of The Texas Co. He succeeds an ex-country lawyer, who succeeded an ex-engineer, who succeeded the founder of the company, a man who spent quite a number of his years as a "roughneck," or, if you prefer, a diamond in the rough. Mr. Holmes started for wages as an all-around handy man in a refinery.

The chances are if you could have rounded up the whole lot of present day higher oil company officers twenty or twenty-five years ago, they couldn't have made up a pool of $100 in hard earned money between them.

In this democracy of leadership lies the real strength of the industry. Herein is absolute proof of its real Americanism, an ever living promise to all men in industry.

—W. C. P.

Cincinnati Advertising Globes

ASK THEM IN

The passing motorist notices and responds to the eye-catching glass globe, especially the CINCINNATI globes with their brilliant, permanent designs. Fired-in glass colors permanently affix to the globe faces your design in true, ever brilliant colors. There is no scaling off.

4 Points!

1. Colors Fired-In.
2. Scientific Annealing
3. Shipments Prompt.
4. Low Cost.

No charge for sketches and art work. Information available as to prices and delivery.

The Cincinnati Advertising Products Company

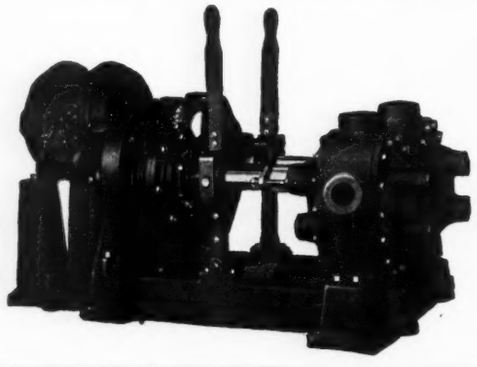
1101-1107 York St.
Cincinnati,
Ohio

TRAHERN ROTARY PUMPS

TRAHERN, with keen insight into refinery and bulk station problems has made the handling of oil in large quantities a much easier and more efficient task. The strong, sturdy, practical construction of the Trahern Pump and its efficient, economical operation creates an instant demand for it from the bulk station owner.

The Trahern principle is that of two gears rotating in opposite directions and meshing perfectly. This type of construction creates a minimum amount of friction with a maximum amount of service.

Low price, ease of installation, perfect performance and long life are outstanding characteristics of this Trahern Pump.



GEO. D. ROPER CORPORATION

Rockford, Illinois

TRAHERN

Sunday Closing Observed at Stokes Stations

ROANOKE, VA., April 17.—While Sunday closing of his service stations is observed by H. F. Stoke, of the Stoke Battery and Armature Works and Gas, at Roanoke, Va., he offers gasoline on Saturdays at a half-cent under the regular retail price.

He believes this half-cent cut price serves to draw enough trade to his stations on Saturday to offset what he might get were his stations to remain open on Sunday. "I believe the rest that comes from closing our business entirely on Sunday is beneficial to me and to my men," he said. "We could arrange shifts and have the equivalent of a day a week off, but the rest comes from the knowledge the business is shut down and can be put out of a man's mind for the time being.

"In small places, particularly, people could be brought to the idea of having their car serviced on Saturday, or even before that during the week."

Mr. Stoke furnishes complete servicing to the car, and has parking space in addition, partly under cover. His principal location is convenient to the downtown section and he fills his storage there direct from tank cars. He has a slogan he posts on arrows around town, "In Roanoke park with Stoke." He got into the gasoline business by the sidedoor, as he expresses it, being in the battery and ignition business and taking on gasoline three years ago as a sideline.

Trucks Replace "Buggy Ride" Oil Deliveries

ONEIDA, N. Y., April 17.—G. D. Hermann & Sons, Inc., which has been operating as a partnership the past five years, was incorporated under the laws of New York state in March, and began business as a corporation on April 1.

Officers are: G. D. Hermann, president; William F. Hermann, vice president and treasurer; Karl G. Hermann, secretary, the two latter being sons of G. D. Hermann.

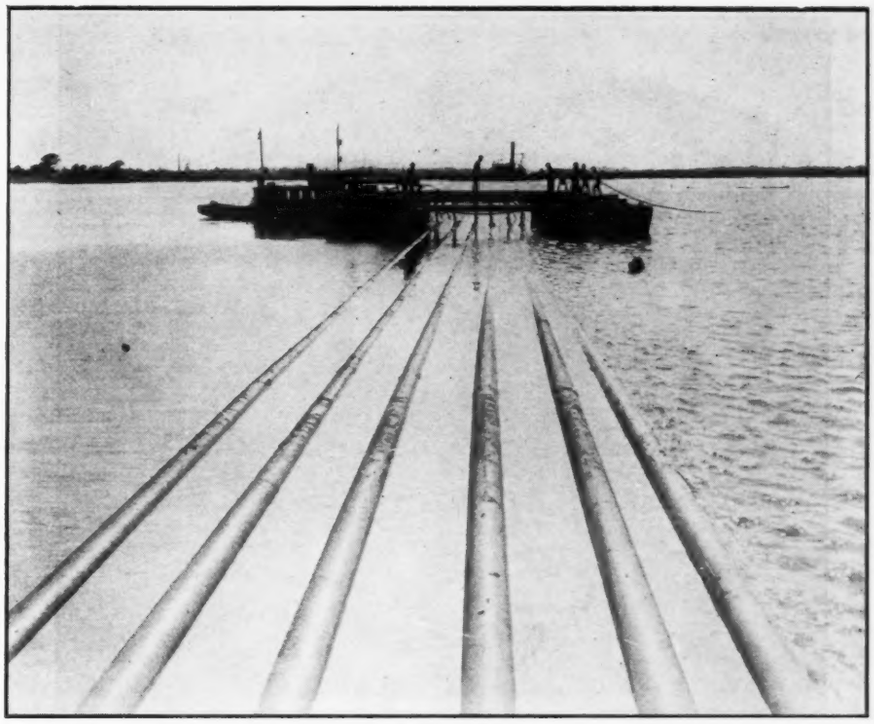
The elder Mr. Hermann started in the oil business 25 years ago equipped with horse and wagon with which he peddled kerosene from house to house. Today the company has 10 employes, operates three tank trucks, one bulk plant and one filling station.

Plans for another filling station in the business district of Oneida have been announced.

During the past winter the company equipped its 3½ ton Mack truck, which has a 1000 gallon tank, with a snow plow to keep one of its routes open for fuel oil deliveries to a neighboring city.

Engineering Feat Carries Gas Line Across Ship Channel

By Paul Wagner
N. P. N. Staff Writer



End of Ship Channel Crossing lines supported by twin barges and progressing toward center of waterway for welding of last link in Houston Pipeline Co.'s 320-mile gas line.

HOUSTON, April 17.

ANOTHER construction record was set at midnight, March 27, when the last link was welded in the 320-mile gas line of the Houston Pipe Line Co., from the southwest Texas fields into the Houston industrial district along the ship channel.

At that time was completed the world's longest and largest high pressure gas line, which system is soon to be extended another 80 miles from its field terminus in southeastern Live Oak county to the Cole-Bruni development area of the general Laredo district. Eastern mills are already rolling the pipe for the 16-inch and 12-inch extension line, which the company expects to finish this summer.

The welding of the last connection at the Alexander Island crossing of the Houston ship channel, effected at midnight by the light of an immense gas flare, was a ceremony remindful of Alexander Island's history. It is believed once to have been the haunt of pirates—Jean Lafitte and the Welsh nobleman-buccaneer, Sir Henry Morgan, either of whom mayhap, buried treasure by the light of pine knot torches in other days.

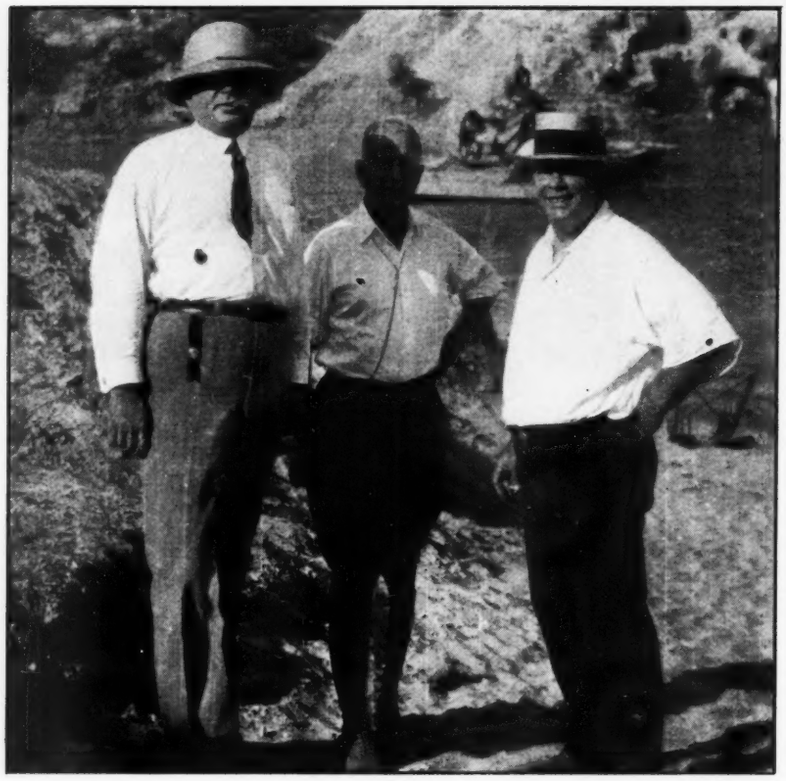
Oil Refineries Served

CROSSING of the ship channel at Alexander Island virtually completed the work of tieing-in the Houston Pipe Line Co's. system to the Baytown plant of the Humble Oil & Refining Co., which hereafter will use natural gas as fuel instead of oil. This crossing of the ocean-going waterway was made at a point near the foot of the ship channel where it is 2600 feet across and where the pipe line loops rests 45 feet below the surface of the water.

Another crossing of the channel had been previously made at the north end of the waterway, below the Port Houston turning basin, where gas facilities had been provided for the refinery of the Galena Signal Oil Co. of Texas.

Besides the Humble, which will use upwards of 15,000,000 cubic feet of gas daily, and the Galena Signal, now consuming about 8,000,000 cubic feet daily, the Houston Pipe Line Co. supplies in-

Manifold picture showing four 10-inch loops connecting to 18-inch pipeline on north side of Houston ship channel where gas facilities lead to Humble Oil & Refining Co.'s Baytown plant. Groups of five in center left to right, "Bob" Halle, superintendent of welding for Houston Pipeline Co.; Frank Kirk, general pipeline superintendent; Rex West, assistant superintendent; Pete Manning, Veteran pipeliner and supervisor of waterway crossings; C. B. McKinney, general manager.



The picture shows, at left, E. H. Buckner, President of Houston Oil Co. of Texas and its subsidiary Houston Pipeline Co., whose foresight made the system possible; Edwin Allen Macpherson, pipeline contractor; and Frank Kirk, general pipeline superintendent.

dustrial fuel to the Houston Lighting & Power Co., the Sugarland Industries at Sugarland, and the Texas Gulf Sulphur Co., at Gulf, Matagorda county. The lighting and power company is using 10,000,000 and 11,000,000 cubic feet daily, the Sugarland Industries about 3,500,000 cubic feet and the sulphur company about 18,000,000 cubic feet.

Subsidiary of Houston Oil

HOUSTON Pipe Line Co., which is a subsidiary of the Houston Oil Co. of Texas, is headed by E. H. Buckner as president. Other officers include A. S. Henley as vice president of the pipe line company; Frank Kirk, as general superintendent; Rex West, as assistant superintendent; Pete Manning, supervisor of waterway crossings and Robert Halle, superintendent of welding.

The pipe line contracting firm of Edwin Allen Macpherson, which put through the job successfully in exactly 10 months, was represented in its work by Mr. Macpherson; William R. Mitchell, his general manager; Joe Worth, foreman; Joe Goodack and H. T. Guthrie, assistant foreman.

As now constituted, the system involves more than 60,000 tons of material, consisting of 18-inch, 16-inch and 12¾-inch pipe, except at waterway crossings where 10-inch loops are used. The line was welded in sections where it passes through swamps, rice fields and under streams; elsewhere it was put together with Dresser couplings for the 18-inch and 16-inch sections, and Dayton couplings for the 12¾-inch sections.

Where the line passes under water, at crossings and through swamps, a chemical preparation sold under the trademark name of No-Oxid was used as a protective coating against corrosive elements; the main line was given three coats of the pipe coating manufactured by the American Paint Co.

Engineering Feat Remarkable

AN engineering feat that is considered perhaps the most remarkable of its kind in the history of pipe line construction was accomplished in the crossing of the Houston ship channel at Alexander Island. It was first necessary to make cuts in the banks, from which some 200,000 yards of dirt were removed, for the purpose of taking the crossing loops under the water without too severe strains on the bends. Then it was necessary to dredge out the bottom of the channel to provide a resting place for the six 10-inch crossing loops.

The distance across the channel at the crossing point is 2600 feet; and for 500 feet of this deep ocean-going waterway the loop lines rest at a depth of 45 feet below the surface. The ship channel is now a 35-foot waterway, wh ch the government eventually may deepen to 40 feet by dredging. The additional depth at which the pipe line loops rest protects against this eventuality.

Parenthetically, the white looking bank shown in one of the accompanying pictures, is the spill from the suction dredge taken from the cut in the channel. It is chiefly whitish clay and shell. More than 75 per cent of the 200,000 yards of dirt removed was hard clay digging and not silt, as would be expected from wide stream conditions passed through.

Pictures Show Operation

THE detail of crossing the ship channel from Alexander Island, on the south side of the ocean-going waterway, is shown in the accompanying pictures. These deal with the coupling, welding and pulling of the various lines making up the connections at, or near, the ship channel crossing.

Obstacles other than the laying of the line across the channel had to be taken care of first, however, as about 6000 feet of swamp extends across Alexander Island from the south side of the channel. It was necessary to use 4x4x6 concrete

Fordson tractor connected to Dorsey winch, which hook-up furnished power for pulling ship channel crossing lines.

blocks, reinforced with iron rods, every 50 feet to hold the 18-inch main line pipe in place through the 6000 feet of swamp. These concrete blocks were cast around the 18-inch pipe before the ditch was filled in, as the swamp is a tidal area requiring some such protection. Cheap piling had been previously used to make possible the digging of the necessary ditch through the swamp and quicksand.

The motive power for pulling and pushing the 600,000 pounds of welded 10-inch pipe from the south shore and 500,000 pounds from the north shore for welding together in the center of the ship channel was furnished by a pair of Fordson tractors connected to a Dorsey winch, geared 250 to 1.

Cables from the winch were pulled up some 200 feet from the water edge and hitched with chains to the six 10-inch lines. When the power was turned on, the twin barges, between which the pipes had been swung, progressed at the rate of 9 feet per minute toward the center of the waterway. The power supplied by the Fordsons was more than sufficient; and after the first one or two pulls of about 200 feet had been made one Fordson and the Dorsey winch constituted all the equipment necessary for the pulling operation.

The lines rolled readily on the short lengths of 10-inch pipe laid at right angles for the purpose of aiding in the pulling operation. These 10-inch rollers were placed at intervals of about 75 to 100 feet. Four 2x6 planks laid parallel to the six pipe line loops served as runways.

When the pipe had been brought together from the north and south shores of the ship channel the welding of the last link of the system was accomplished and the crossing lines slowly dropped to their resting place 45 feet below the water's surface.

Oil Board Asks Geologists to Criticize Institute Committee Estimates

TULSA, April 17.

THE Federal Oil Conservation Board is out gunning for the Supply and Demand report of the American Petroleum Institute Committee of Eleven.

Several hundred petroleum geologists of the country have been asked by Dr. George Otis Smith, director of the U. S. Geological Survey and a member of the advisory committee of the oil board, to give their individual opinions of the estimates of the institute committee on petroleum recoverable from existing wells and proven acreage under present methods; of the recoverable amount of oil remaining after pumping and flowing have ceased in present known fields; and of the amount of unproved acreage in this country favorable to production.

The geologists to which Dr. Smith has sent a questionnaire letter are asked to discuss the institute committee's estimates as fully as they desire. They are reassured that the information they give will be used in connection with other replies and individual names of writers will not be used. In fact they do not even have to sign their letter of reply unless they wish to.

Letter Not Made Public

THE questionaire letters the federal oil board sent out last year to members of various branches of the oil industry were all given to the public. Not so with this letter to the geologists, however. Although dated March 23 and received by geologists in the southwest over the past week, no official announcement has been made in Washington of this latest move on the part of the oil board.

Opinion of geologists receiving the questionnaire letter differs as to how it should be handled. Some are glad of this chance to get on record themselves as to their own ideas of the estimates the institute committee placed on the future supply of oil and acreage yet to be discovered. Some are not going to answer it at all. It is the subject of debate in local chapters of geologists' organizations. The Kansas organization of geologists, with headquarters at Wichita, has decided to proceed to give the oil board their own joint ideas as to the future resources in that state independent of the questionnaire letter.

The estimates of the institute Committee of Eleven on which Dr. Smith is calling for criticism—in some cases from geologists who had a hand in preparing them for the committee—are its figure of 5,300,000,000 barrels of petroleum recoverable by present methods from existing wells and proved acreage. Another is its estimate of 26,000,000,000 barrels of oil remaining in the ground after pumping and flowing in present fields and what is known as proved acreage. The third estimate is the committee's figure of 1,100,000,000 acres of land favorable to oil production in this country outside present existing fields and proven acreage.

These three estimates have been the subject of a great deal of discussion in the industry since the Committee of Eleven made its report public last summer. Some criticisms of the figures as being too optimistic have openly been made to the oil board. Some of the speakers at the open meeting the board held in Washington last February said the figures were too large. Unofficially and inside the industry there has been any amount of discussion, pro and con, for the report and the estimate as they stand.

Here are the questions concerning these estimates that Dr. Smith asks now of the petroleum geologists, a digest of their replies presumably to be used by the board in making the report to President Coolidge on the first phase of its work, the domestic petroleum situation. The board hopes to have this report ready before congress adjourns in May:

"1—Is the estimate of 5,300,000,000 barrels of oil recoverable by present methods from existing wells and proved acreage a reasonable estimate?

"2—Is the estimate of 26,000,000,000 barrels remaining in producing and proved acreage a reasonable estimate? Is it significant? That is, is this oil or an important part of it recoverable by methods and at prices and within a period that justify the United States and its industries in relying upon it as an important factor in maintaining production?

"3—What value do you attribute to the 'billion acre reserve?' Do you agree with the Committee of Eleven that the 1 billion, 100 million acres of unproved land constitute the 'major oil reserves of the U. S.' and 'will provide vast quantities of oil?, Specifically:

"(a) Have we a reserve of approximately a billion acres 'of land of geological formation favorable to the presence of oil?'

"(b) Have we a reserve of approximately a billion acres of land 'in which geology indicates oil is possible?'

"(c) What reasonable reliance can be put on this reserve for maintaining future production?

"In this letter to the geologists of the country accompanying these questions, Dr. Smith said:

"For the information of the board, I should like your frank professional opinion of the validity and significance of these estimates. By validity I mean whether or not the estimates may be regarded as within reasonable limits of error considering the difficulties involved in making such estimates; by significance I mean particularly whether, whatever the quantity of oil that may exist in these types of reserves (the 26,000,000,000 barrels recoverable after pumping and flowing and the billion acre unproved reserve) it can reasonably be relied upon to be found and recovered in such significant quantities as to be an important factor in maintaining the necessary rate of production as the reserves under class 1 (5,300,000,000 barrels recoverable by present methods from existing wells and proved acreage) decline."

First Broadside Fired in Publicity Campaign of Oil Industry

THE first broadside was fired April 11 in the publicity campaign organized to bring the oil industry closer home to the American public.

It was in the form of a full-page newspaper Sunday feature story, with illustrations, released to principal newspapers all over the country as of that date.

The story, entitled "A Billion Dollars In Tolls Yearly Provide Modern Highways," tells that all the taxes, direct and indirect, that motorists pay amount in a year to more than a billion dollars, and that the country is spending this amount to build and maintain roads.

It was written by Judson C. Welliver, director of public relations for the committee of representatives of all active oil associations, based on an interview with Thos. H. MacDonald, chief of the U. S. Bureau of Public Roads. It is the story of a motorist—most any motorist—with a bump of curiosity big enough to lead him to find out how the system of roads is maintained which has converted this country into a big neighborhood, and what part he plays in that system.

Other stories which Mr. Welliver is preparing to release to the newspapers generally have to do with showing the vast system of pipe lines the oil industry maintains to transport oil across the country, and with the work of drawing up a uniform model system of accounting which the American Petroleum Institute has undertaken, under the direction of M. W. Mattison, in charge of accounting and tax work for the institute. Still other subjects will be taken up later, all designed to give newspaper readers of the country in readable form some of the facts concerning the oil industry.

While the Committee on Public Relations, made up of representatives of the various oil associations has been functioning for about two years, Mr. Welliver has been in this work only since last November. Before that, since 1921, he was general publicity advisor and literary secretary at the White House. For 20 years he was in newspaper work and politics at Washington. He is paid and this publicity work carried on out of a fund of $100,000, which was raised by contributions of oil companies to further the cause of better relations between the oil industry and the American people. Mr. Welliver maintains his office with the American Petroleum Institute at New York.

An Interview With Thos. H. Mac Donald, Chief U. S. Bureau of Public Roads

By JUDSON C. WELLIVER

THE motor tourist enroute from coast to coast stops his car at a filling station on the side of a cement road in a middle western state, and to the attendant's polite "How much?" replies:

"Ten gallons."

While the "gas" is being drawn the attendant, noting that the car bears a California license, ventures:

"You've come a long way, sir?"

"Yes, considerably more than 2000 miles," replies the driver, "and these last few miles have been particularly interesting, because I used to live in this county, and this is my first visit for a dozen years. When I last saw it there were only dirt roads; mud in rainy weather, dust in dry. In the last hour we have almost crossed the county, on either cement or macadam. When I lived here, it would have taken half a day, and pretty nearly ruined a car."

By that time, the tank being filled, the motorist interrupts his reminiscences to inquire:

"How much?"

"Ten gallons at 21 cents; $2.10," advises the attendant.

Mr. Motorist passes over a bill, and while change is being made, continues:

The Highway Revolution

WE'VE come from California, and have scarcely had enough of bad roads to make us appreciate the good ones. Yet it's only a few years since we all used to talk and write endlessly about the country's greatest single need being good roads. They used to tell us it would take centuries to equip this country with such roads, because of the expense. But here they are; I wonder how the country has managed to pay for them."

"Well, sir," suggests the gas man, "you have just paid an instalment on them yourself. You paid 21 cents a gallon, of which 3 cents is state tax going straight to the road fund. Last year that 3 cent tax in this state aggregated almost $7,000,000. Every dollar of it went into these roads. Besides that, the state collected nearly $5,000,000 from motor licenses. That went to the road fund, too. So you see you folks who buy the gas are the ones who build the road."

"But of course," suggests Mr. Motorist, "there's the big contribution that the Federal Government makes to aid in state road construction. At least, that part of it doesn't precisely come out of the man who pays the gas bill."

The attendant, who happens to be of the sort that specializes in understanding his job, smiles broadly.

The Story of Federal Aid

THAT'S where you are mistaken. Last year the Government paid about $96,000,000 to the states to help their road building. But in the same year Uncle Sam collected over $143,000,000 in internal revenue taxes on motor cars, parts and accessories. So you see the man who buys the gas not only paid the National Government's share, but enough more to leave Uncle Sam a balance of nearly $50,000,000."

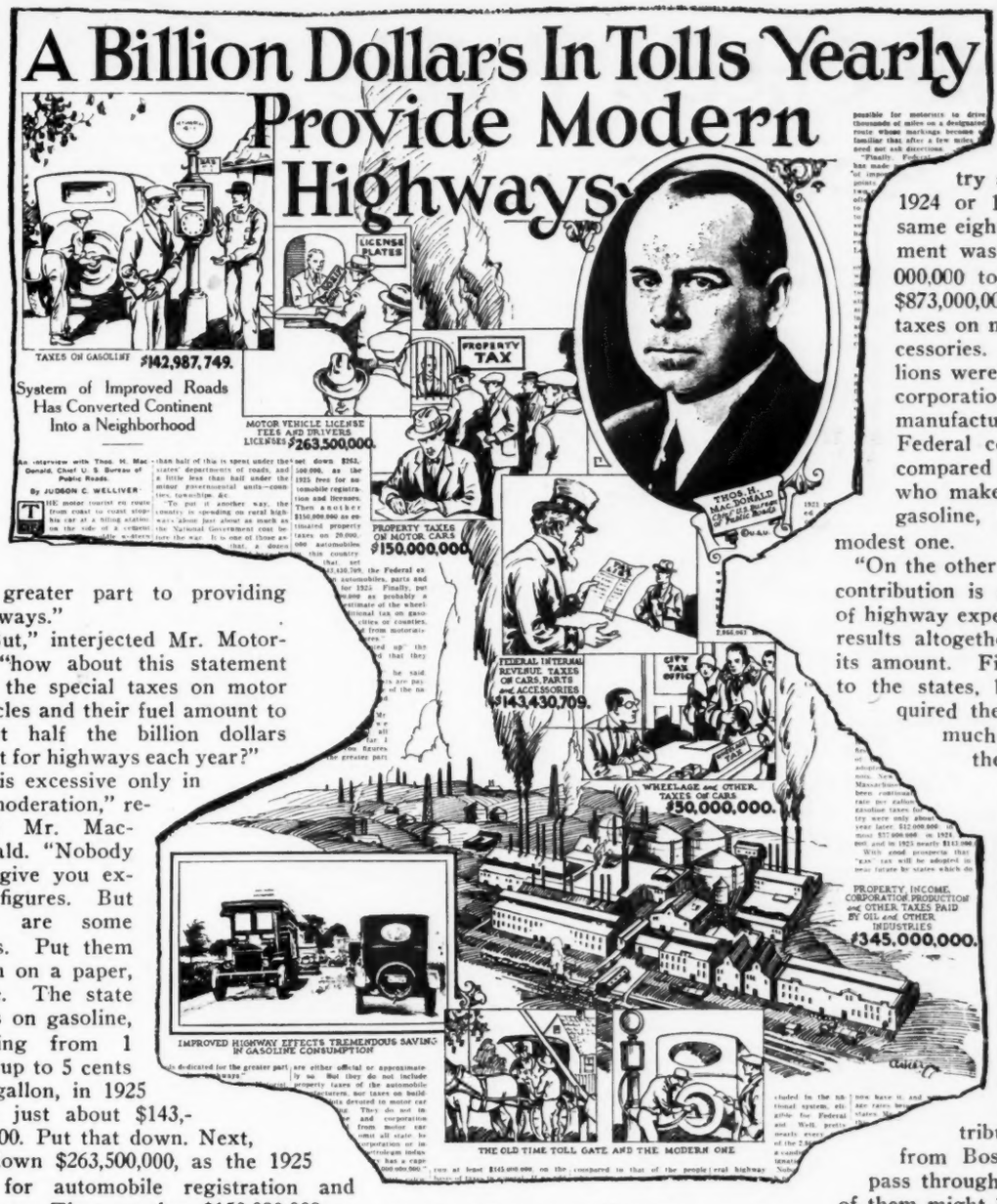
Mr. Motorist's interest was a good deal intrigued, and a few days later, being in Washington, he drove around to the Department of Agriculture, and called on Thomas H. MacDonald, Chief of the Bureau of Public Roads. He wanted to know whether the filling station man had his facts on straight.

Mr. MacDonald was gracious, and more. Quite evidently he wanted people to know about the very matters Mr. Motorist was finding so interesting.

"The people of the United States are now spending just about an even billion dollars annually in building good roads," he said. "That doesn't include city streets; just country roads. A little more than half of this is spent under the states' departments of roads, and a little less than half under the minor governmental units—counties, townships, etc.

"To put it another way, the country is spending on rural highways alone just about as much as the National Government cost before the war. It is one of those astonishing things that, a dozen years ago, nobody would have believed possible; and yet it is not only being done, but being done so easily that few people fully realize its significance. Why, it has taken nearly a century to get $20,000,000 invested in our national railroad system; the rural highways system, at the present rate, will require that much in less than twenty years.

"The equipment of this continent with modern roads has been the most amazing provision of a public utility that any community ever accomplished in a similar period. Historians say the Roman Empire was held together by its highways, radiating from Rome to the provinces. Well, Americans can boast that our highway system has converted a continent into a neighborhood in a few years. It really represents the inauguration of a new system of taxation; a system of licenses and excises levied against particular privileges or classes of property, with the proceeds dedicated for


A Billion Dollars In Tolls Yearly Provide Modern Highways
TAXES ON GASOLINE $142,987,749.
System of Improved Roads Has Converted Continent Into a Neighborhood
LICENSE PLATES
PROPERTY TAX
MOTOR VEHICLE LICENSE FEES AND DRIVERS LICENSES $263,500,000.
PROPERTY TAXES ON MOTOR CARS $150,000,000.
THOS. H. MACDONALD CHIEF U.S. BUREAU OF PUBLIC ROADS
FEDERAL INTERNAL REVENUE TAXES ON CARS, PARTS and ACCESSORIES $143,430,709.
WHEELAGE and OTHER TAXES OF CARS $50,000,000.
PROPERTY, INCOME, CORPORATION, PRODUCTION and OTHER TAXES PAID BY OIL and OTHER INDUSTRIES $345,000,000.
IMPROVED HIGHWAY EFFECTS TREMENDOUS SAVING IN GASOLINE CONSUMPTION
THE OLD TIME TOLL GATE AND THE MODERN ONE

Layout of Newspaper Feature Story on Taxes

the greater part to providing highways."

"But," interjected Mr. Motorist, "how about this statement that the special taxes on motor vehicles and their fuel amount to about half the billion dollars spent for highways each year?"

"It is excessive only in its moderation," replied Mr. MacDonald. "Nobody can give you exact figures. But here are some items. Put them down on a paper, there. The state taxes on gasoline, ranging from 1 cent up to 5 cents per gallon, in 1925 were just about $143,000,000. Put that down. Next, set down $263,500,000, as the 1925 fees for automobile registration and licenses. Then another $150,000,000 as estimated property taxes on 20,000,000 automobiles in this country. After that set down $143,430,709, the Federal excise tax on automobiles, parts and accessories for 1925. Finally, put down $50,000,000 as probably a conservative estimate of the wheelage taxes, additional tax on gasoline charged by cities or counties, and fines collected from motorists. Now add those figures."

MR. Motorist "toted up" the items, and announced that they aggregated $749,930,709.

"According to this," he said, looking up, "the motorists are paying very near the whole of the national road bill, instead of half."

"Yes," replied Mr. MacDonald, "and we have not included all the items. Thus far, I have given you figures that for the greater part are either official or approximately so. But they do not include property taxes of the automobile manufacturers, nor taxes on buildings and lots devoted to motor car merchandising. They do not include income and corporation taxes derived from motor car business. They omit all state, local, production, corporation or income taxes of the petroleum industry. Yet that industry has a capitalization of about $9,000,000,000."

Mr. Motorist made a little calculation on his paper. Looking up, he said:

"These additional taxes would run at least $345,000,000 on the basis of taxes in general. If we add that in, it totals $1,094,930,709. That's what car owners and builders, gasoline users and producers, are paying. It more than meets your whole highway cost of a billion."

Mr. MacDonald leaned back and thought a moment. "There is a widespread notion," he presently said, "that Federal aid represents a large share of the investment in good roads. As a matter of fact, in the eight years from 1918 to 1925 inclusive, the Government has contributed $460,000,000 to help the states build roads. That is considerably less than half of what the country spent on roads in either 1924 or 1925. Moreover, in the same eight years that the Government was distributing that $460,000,000 to the states, it collected $873,000,000 in internal revenue taxes on motor cars, parts and accessories. Other hundreds of millions were collected in income and corporation taxes from motor car manufacturers and dealers. The Federal contribution to roads, as compared to that of the people who make and use the cars and gasoline, has been decidedly a modest one.

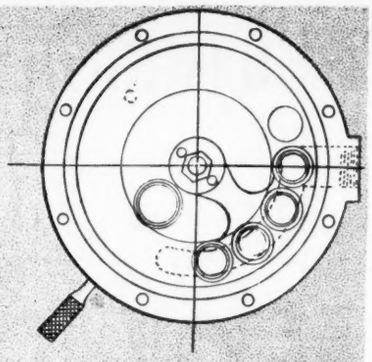
"On the other hand, while the Federal contribution is only about 10 per cent of highway expense, it has accomplished results altogether out of proportion to its amount. First, it was an incentive to the states, because Uncle Sam required them to invest at least as much as he contributed. Also, the Government retains a part in the general supervision of construction, and a share in determining routes. So we have built roads on higher standards, and have organized them into a truly national system, instead of forty-eight state systems.

"Some day it will be realized that this was the most valuable contribution. A man driving from Boston to New York may pass through four states. Every one of them might have a splendid highway system; but if these did not articulate at the state lines, the trip would be almost impossible.

THE Federal Highway Act of 1921 required that a complete, nation-reaching system of roads be designated within two years as the ones to which Uncle Sam would give assistance. Nobody who was not connected with this department will ever have the faintest conception of the task involved in laying out that map. It was found that there were 2,866,061 miles of highway in the country. Of these, 7 per cent, or 200,624 miles, were to be included in the national system, eligible for Federal aid. Well, pretty nearly every mile of the 2,866,061 was a candidate for designation as a Federal highway. Nobody will ever dream how much pulling and hauling, log rolling, and variegated influence was enlisted. But in the end the system as laid out was a truly national one.

"When the map was published it showed nearly the entire 200,000 miles

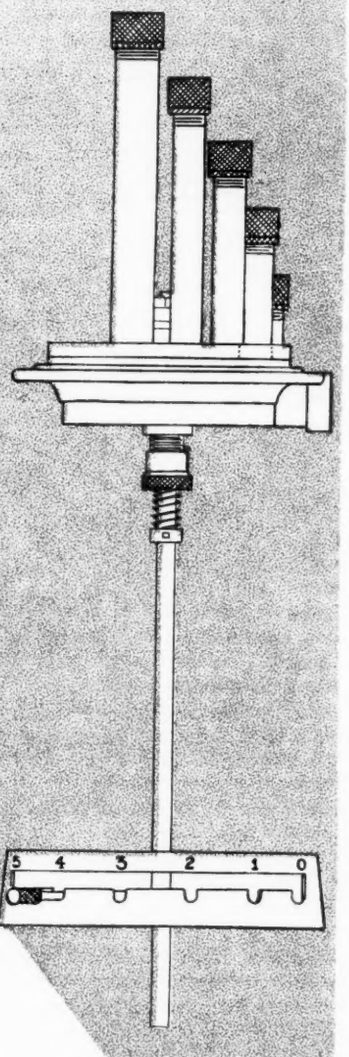
Double Check, Visible Accuracy



CORRECT MEASURE PUMPS give true visible measurements. For example, the motorist sees the operating handle set in notch 4, as illustrated. The gasoline comes to a level at the top of measuring tube 4. It is on the level with the marker on the glass container. No mistaking the amount delivered—that's what the motorist wants. It looks right and it is right.

Measurements are calibrated to the Nth degree of accuracy before pump leaves factory. At the Filling Station it is tested and sealed by Sealer of Weights and Measures.

While collars on outlet tubes are being adjusted and locked, and corresponding measurements on glass container are set at the factory the pump is leveled to the new cross level (pat. pending). It is built on the frame, shown just under the number plate.



When pump reaches gasoline station, level it again to the cross level on prepared foundation, connect two unions and it's ready for action. Your construction engineer will tell you how much this feature reduces the cost of each Correct Measure Pump.

Model 5H

Top down measuring sells more gasoline. The average motorist calls for a gallon or two less than his tank will hold—then will not wait if more must be pumped to fill his tank. But there is always the balance in the Correct Glass Container to make it an even five or ten gallon sale—no waiting, no argument.

Speedy filling and draining, visibly accurate measuring, least costly installation, long satisfactory service, have made "Correct" the Outstanding pump of the day.

It carries the Underwriters label. Write for complete descriptive catalogue.

CORRECT MEASURE COMPANY
ROCHESTER, PENNA.

CORRECT MEASURE PUMPS

of designated roads; and since then 46,485 miles of these have been improved; nearly 13,000 miles more are under construction, and over 2000 miles approved for early beginning of work. In addition to that, many states have built, without Federal aid, extensive sections which are included within this national system; in fact, these state contributions aggregate 65,000 miles; so that approximately two-thirds of the 200,000 mile national highway system has been initially improved.

"Along with all this, there is the Federal supervision over construction and maintenance. When Uncle Sam has helped build a road, he reserves authority to require its proper maintenance. Then there is the business of uniform marking along highways, which makes it possible for motorists to drive thousands of miles on a designated route whose markings become so familiar that after a few miles he need not ask directions.

"Finally, Federal participation has made possible a great number of important bridges at strategic points. When a stream separates two counties or two states, it has often been impossible to get them to agree where to build and how to divide the cost of a bridge. In such cases the Federal authority has repeatedly mediated differences and secured construction. Let me mention some instances.

"Missouri has been a state for over a century. Divided east and west by the Missouri River, communication between the two sections has been limited, to the state's disadvantage. Four bridges across the Missouri were required in the national highway program; and Federal co-operation with the state has made it possible to secure them.

The Tennessee-Arkansas Case

AN even more striking case is at Memphis, Tennessee, where for generations there has been need for better crossings of the Mississippi. It was largely a question of expense. But under the present-day plan for financing highways, that difficulty is almost removed. Last year Tennessee collected $3,193,453 in gasoline taxes, while Arkansas collected $3,668,995. Then the two states collected nearly as much more in motor vehicle fees. With the Federal Government paying somewhere near half, and the states having this $12,000,000 fund to draw upon, one readily sees how the financial problem is solved.

"Another bridge that has a peculiar importance, both locally and in the national highway system, has likewise been needed for generations, across Raritan Bay, New Jersey. It is one of the links in the chain of communication between New York City and the country. In 1924 New Jersey had some $700,000 of Federal aid alloted to her, and in 1925 over $1,000,000. So the state agreed that this Raritan bridge should be built, costing about $4,000,000. Federal funds made up about one-third the amount. The bridge, over a mile and a half long, is now nearly completed."

Mr. Motorist was by this time so far interested that when he reached New York he called on the American Petroleum Institute and the National Automobile Chamber of Commerce. From them he learned that the gasoline tax was first imposed in 1919, in the state of Oregon, and has now been adopted by all states, except Illinois, New York, New Jersey and Massachusetts. The tendency has been continually to increase the rate per gallon. As late as 1921 gasoline taxes for the entire country were only about $5,000,000; a year later, $12,000,000; in 1923, almost $37,000,000; in 1924, $79,000,000, and in 1925 nearly $143,000,000.

With good prospects that the "gas" tax will be adopted in the near future by states which do not now have it, and with the gallonage rates being increased in other states, Mr. Motorist calculated that this tax alone would soon total $200,000,000 a year; quite possibly during 1926.

On his way back to California, Mr. Motorist stopped at the same filling station where his interest in highway finance had first been aroused. He found the same attendant and ordered the same ten gallons. While he was paying, he said:

"I find that the total of motor vehicle licenses, automobile property taxes, gasoline taxes, internal revenue taxes on cars and parts, various special motor taxes, and, finally, the general property taxes, corporation and income taxes, of the oil industry and motor car manufacturers, actually amount to nearly a hundred million dollars per annum in excess of the billion dollars that the country is spending to build and maintain roads."

"Which suggests," replied the station attendant, "that without quite realizing it we have returned to the old system of collecting tolls for the use of the highway."

"That seems to be precisely the situation," replied Mr. Motorist as he "stepped on it" and headed his car westward. "We folks who buy number plates once a year, and 'gas' all the time, are building the good roads of the nation."

HE might be gloating over having landed that "eighty" that all the companies were after and again, he might be trying to "peddle" some acreage to the serious man in the overcoat. The latter theory doesn't quite square with the probabilities, however, for they are competitors. On the left is Ralph Thomson, land man for the Wiser Oil Co., Sistersville, W. Va., and on the opposite side, i.e., the right, is Dan F. Shea, land man for the East Ohio Gas Co., Cleveland, O. Mr. Thomson was for a considerable time a resident of Medina, O., from where he handled leasing activities for his company in central and northern Ohio. Mr. Shea is as well known in West Virginia as he is in Ohio—and that is quite well—for he spent several years in the service of the United Fuel Gas Co., Hope Natural Gas Co., and one or two others operating in West Virginia.

Capacity Increased and Fuel Saved By Flue Tubes in Shell Stills

By J. C. Chatfield
N. P. N. Staff Writer

TULSA, April 15.

At the recent meeting of the Petroleum Division of the American Institute of Mining and Metallurgical Engineers at New York, Walter Miller, manufacturing manager for the Marland Refining Co., mentioned in his paper that some refiners have installed internal flues in shell stills. The flues are built in for the purpose of increasing heat transfer without resorting to replacement of shell type equipment with tube stills.

Thus far the installation of tube stills has been confined almost entirely to new building. While efficiency of these stills is conceded to be greater, the difference generally is not considered sufficient to warrant the junking of existing shell still equipment now in use.

The installation of internal flues in shell stills is merely one of the devices being tried to increase thermal efficiency. Other expedients being adopted include air improvement in still settings and the installation of preheaters and economizers in flues.

European Idea

Internal flues were used first in European refineries by the Royal Dutch Shell interests. In these installations one or two large tubes were placed in the lower part of the still. In adapting the idea of internal flues in this country refiners have decreased the size of the tubes and increased the number. The largest companies which are using the plan here are understood to be the Standard Oil Co. of New Jersey and its affiliated companies such as the Standard of Louisiana, Humble Oil Refining Co. and the Imperial Oil Co., Ltd., of Canada.

Figure 1 is a diagrammatic drawing of a still and setting illustrating the manner in which tubes are installed in a still. At the left is an end view while the drawing at the right shows the travel of gases within the still setting and through the internal flues to the stack.

Present practice is to install from 20 to 30 tubes in each still. Corrosion of the tubes has not been found an important factor in operation so that it has not been found necessary to use tubes of special material. Tubes usually installed are of either 4 or 6-inch diameter.

Tubes are placed in two banks below the oil level with a space between as will be noted from the drawing. The center space is left to facilitate cleaning out when necessary. This necessitates a double boot at the rear of the still to separate the combustion gases into two streams and conduct them to the tubes. Tubes are staggered in the bank.

Method of Installation

In early installations tubes were flanged and riveted to still heads. The result was not entirely satisfactory. Present practice is to turn tubes back on themselves. By welding in the interior, tubes are beaded to prevent leakage. In installing tubes it is necessary to make a study of expansion ratios of materials used, although the dished still heads take care of a part of any differences in expansion.

In tube still installations oil to be heated is circulated through tubes which are equipped with fins to give a larger surface for heat absorption. It is impossible to obtain tubes with fins on the inside for installation as flues in a shell still. Fins on the outer surface in contact with the oil would be of no value since oil will absorb heat as rapidly as it is transmitted by the metal of the tube.

No attempt as been made thus far to pass the flue gases back through the still a second time. While a somewhat larger fuel saving might result, it has been the thought of refinery engineers that draft conditions would be adverse to the best combustion of fuel under the still. It has been found in practice that this system works somewhat better when there is an individual stack for each still than where there is a common stack for an entire battery.

Cost of Work

Costs of installing tubes in the stills vary with different plants. It is estimated that normally the cost will be from $4,000 to $5,000 per still.

In the ordinary shell still installation heat input is entirely through bottom fire sheets which vary from one third to one half of the circumference of the still and the rate of evaporation of the contents of the still varies directly with the area of still

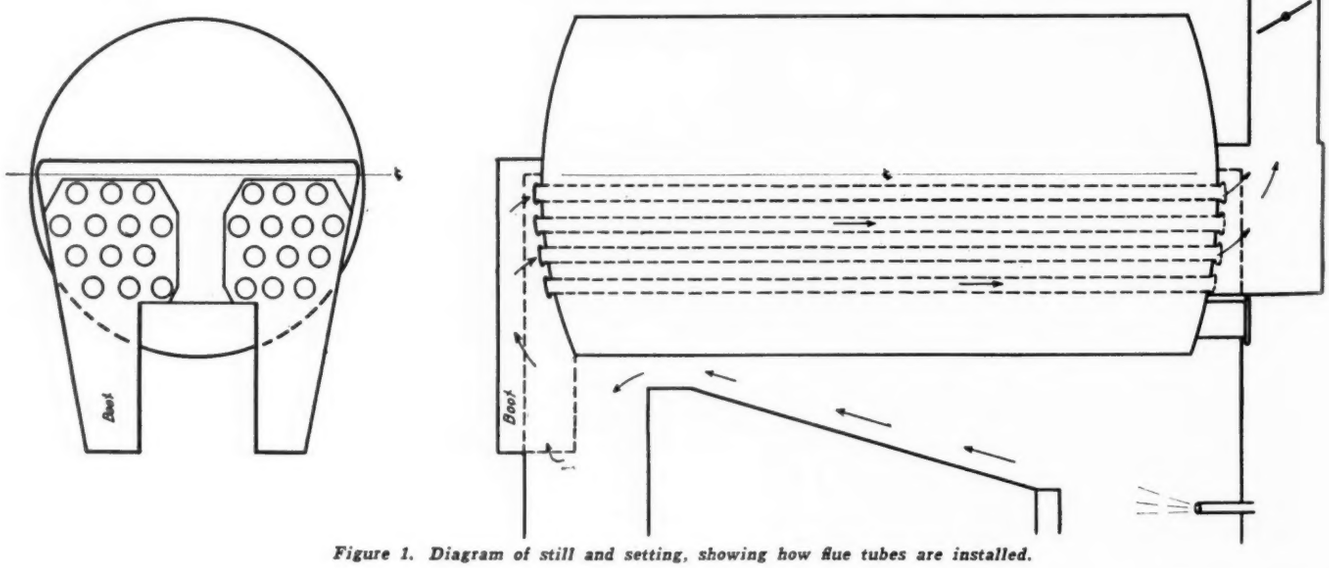


Figure 1. Diagram of still and setting, showing how flue tubes are installed.

Set dial *and* get just *the* pressure wanted

The bell rings while the air flows—when it stops the air stops—and you have just the amount wanted—it never varies more than one pound from the dial indicator.

THE *American Automatic* AIR STAND

The air stand is your *only* equipment the motorist *handles himself*. He has a *decided preference* in choice of place to get air and he shows it in selecting the place where delivery is *sure* and *reliable* and he can get air *easiest* and *quickest*.

And that is just what the American Automatic Air Stand does.

Set the dial on indicator at pressure wanted, apply the chuck and when bell stops ringing the air stops, whether chuck is held on or not, and you have just the amount wanted.

You can't get too much or too little. You don't have to apply a gauge and then inflate or deflate to get the right amount.

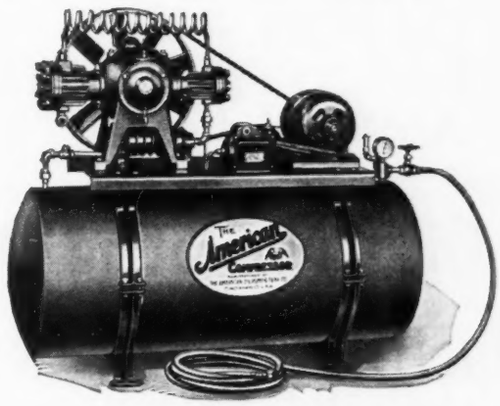
There is *no complicated mechanism* about this stand—it operates on a diaphragm-switch principle. It is easy to handle and has been *thoroughly tested*.

And for *attracting motorists to your station*, the American Automatic Air Stand *has no equal*.

Fill out coupon below for full information.

The American Oil Pump & Tank Co., 1713 Dalton St., Cincinnati, O.

THE *American* AIR COMPRESSOR



For construction, operation, wear and appearance this American Air Compressor stands supreme. Noiseless operation secured by using plate or disc valves—no hammering. Cylinders are offset from center to crank-case—connecting rods kept straight. Made in three sizes: ¾ H. P., 30 gallon tank, 3 cu. ft. per minute delivery; ¾ H. P., 60 gallon tank, 3 cu. ft. per minute delivery; 1 H. P., 60 gallon tank, 4.5 cu. ft. per minute delivery.

Send coupon for full information.

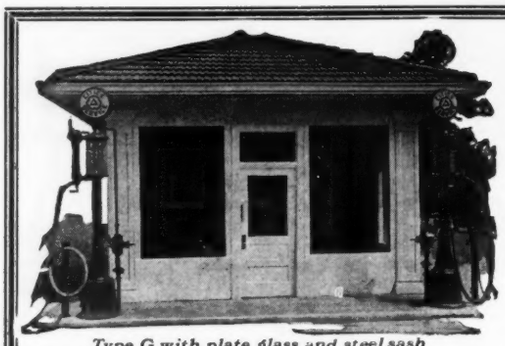
THE AMERICAN OIL PUMP & TANK CO.,
1713 Dalton St., Cincinnati, O.

Please send information and prices on:

☐ Automatic Air Stand ☐ Air Compressor

.....

.....



One of the 70 different types of

Shepard Stations

Your own men can erect them.

They're permanent.

Wire Collect for prices.

Type G with plate glass and steel sash

ARTHUR B. SHEPARD CORPORATION

Architects and Manufacturers

11 Broadway NEW YORK CITY

GULF Refining Company

General Sales Offices
PITTSBURGH, PA.
District Sales Offices
New York, Houston, Atlanta, Boston, New Orleans, Tampa, Philadelphia

REFINERS OF OKLAHOMA TEXAS AND LOUISIANA

PETROLEUM

REFINED OIL
GASOLINE
NAPHTHA
GAS OILS
PARAFFINE WAX
ASPHALT

Fuel Oil--Lubricating Oils

CYLINDER ENGINE
CORDAGE

RED AND PALE PARAFFINE OILS

bottom exposed to heat.

By the addition of flues in the still, heat is applied directly to the oil in the upper portion as well as that in contact with the bottom. It is reported that the heat input is greater by 25 to 40 per cent in stills equipped with flues with the result that a corresponding increase is made in capacity.

The factor which interests refiners most keenly today, however, is this period of intensive competition and small manufacturing margins, is the amount of fuel which can be saved. Ordinary shell stills are notorious in the amount of heat wasted unless methods are employed to reclaim the heat by installing preheaters, steam superheaters or waste heat boilers. It is common for flue gases to run as high as 500 to 700 degrees at the end of the continuous run.

Stack Temperatures

Due to the counter current run of tube stills, it is good practice where stack gases run only 150 to 200 degrees above the temperature of the oil in the system. In this respect the installation of flue tubes in shell stills brings about a stack temperature which compares very favorably with that found in tube still stacks. One refiner reported to the writer that flue gases left the system with a temperature running within 100 to 150 degrees of the temperature of the oil in the still.

In addition to the increase in heat input and hence capacity ranging from 25 to 40 per cent, it is reported that fuel consumption per barrel of oil charged to the stills has been reduced from 20 to 30 per cent in batteries of shell stills where internal flues have been installed. The principal drawback to the wide installation of the flues appears to be the relatively high cost of installation.

Gebo Test is At Last Finished–Dry

CASPER, WYO., April 16.—Gebo dome, a promising looking structure in Hot Springs county, has been tested through the Cloverly formation and into the upper part of the Morrison without result and the test is being abandoned. Depth was 2903 feet. The test was drilled by Mountain States Petroleum Co., subsidiary of Utah Oil Refining Co.

The test was of considerable interest in Wyoming, not alone because it gave promise, geologically, of opening a new field, but because the test was delayed for several years until dispute between claimants of government title could be adjusted.

GOWANDA, N. Y.—E. L. Gayvert & Co., who handled Kendall Refining Co.'s gasoline will install bulk storage tanks at Olean, N. Y., which will give that company a total of five bulk stations.

Some of the Ways Steam Is Wasted, Methods of Improvement

By H. S. Bell
Petroleum Engineer, Woolworth Building, New York
Delivered before N. P. A. Convention, Cambridge Springs, Pa., April 16

NO matter how efficient a refiner's boiler house may be, he must use the steam intelligently and without waste if he is to reap the full benefits. This paper will direct attention to the wastes that are often encountered in the steam distribution system and offer suggestions for conserving steam in the refinery.

In order to evaluate the losses and possible savings that follow, I have drawn upon the statistics now available from analyses of member companies' boiler houses. Taking conditions as they were found in 10 different boiler houses, fuel costs average 36 cents per 1000 pounds of steam. It is believed that this figure is fairly representative of member companies' plants.

To the above must be added labor, maintenance, supplies, depreciation and a percentage of general overhead. It is safe to say that these items will average 50 per cent of the fuel for the typical small refinery. This would bring the cost of steam to 54 cents per 1000 pounds, a figure which is used in the following discussion.

Are Losses Realized?

CERTAIN losses are apparent to all but do we appreciate the amount of money involved?

Take the question of insulation; one lineal foot of bare pipe on a line conducting steam at 100 pounds gauge pressure will dissipate to the atmosphere the following heat units per hour, when the temperature is 60° F.:

Diameter	B.t.u.
1 inch	301
2 inch	543
3 inch	799
4 inch	1027

For the average condition encountered, 1 pound of steam generated at 100 pounds with feed water at 150° contains 1070 B.t.u. so the loss of steam per hour by the one foot of exposed pipe is as follow:

Diameter	Pounds of Steam
1 inch	.28
2 inch	.51
3 inch	.75
4 inch	.96

These figures do not appear very startling but let us put them in terms of steam and money lost in one year.

	Steam Lost Pounds	Value
1 inch	2440	$1.32
2 inch	4470	2.41
3 inch	6580	3.55
4 inch	8400	4.54

We all acknowledge the value of insulation on live steam mains, but it is often thought that it is not worth while to insulate the exhaust steam lines. Let us analyze this question a bit. Heat losses are in approximately direct proportion to the difference in temperature between the hot and cool surfaces of the pipe. In the above examples, this difference amounted to 278°. For 5-pound exhaust steam the difference is 168°, so that for all practical purposes the losses are 60 per cent of those deduced for the live steam mains.

Remembering that these figures are for only one lineal foot of pipe and considering the nominal cost of covering, can any refiner afford to leave any of his lines or fittings exposed?

Reference to a standard price list for covering of 90 per cent efficiency reveals an average return of 472 per cent on $1.00 spent for work of this kind on the four pipe sizes in the above examples. Therefore, the cost is earned in about two and one half months.

As we go around the refinery, we repeatedly see steam leaks. A very bad one receives attention, but the little ones are often overlooked in the belief that the loss is nominal and we can take care of it some time next week. Don't forget that the majority of leaks become greater and that even the small ones represent quite a loss in money.

Losses From Leaks

FOR instance, the steam lost per hour from small leaks in a system operating at 100 pounds is as follows.

1/32 inch	4.4 pounds
1/16 inch	17.7 pounds
1/8 inch	70.1 pounds

Not much loss we say, but apply our cost of steam over a year and the figures in dollars are:

1/32 inch	$20.63
1/16 inch	82.60
1/8 inch	327.40

These figures should spur every refiner to so educate his men that a steam leak receives immediate attention.

While on the subject of leaks, the question of open drips brings itself to mind. They represent a prolific source of leaks. Remedy, efficient traps. Even the best traps will leak at times and that they may be detected, never run the discharge to blind drains or sewers. Let them discharge into catch basins or other receptacles where the discharge pipe is visible. Otherwise, how can we tell when some trap develops a leak of considerable financial importance?

The topics discussed so far have had to do with installation and maintenance of the steam distribution system. The next question to discuss is the way the steam is used for power and for process work.

Power Requirement Small

THE proportion of boiler load going into the production of power in a refinery is relatively small when compared to most other manufacturing plants. The big use of steam is at the stills. Here is a real chance for educational work among the operators.

Steam has three functions when introduced into a still of oil; first, it lowers the vapor tension according to the law of partial pressures, thus reducing the necessary temperatures in the still; second, it agitates the oil in the still, thus preventing local overheating on the bottom of same; third, it has a beneficial effect upon certain distillates.

Considering the difference in equipment, in various plants, it is, of course, difficult to set up a standard for the minimum amount of steam necessary. For the average plant, I believe an amount equivalent to one pound per gallon of distillate when first applied up to 7 pounds when finishing stock, is sufficient.

These figures amount to a total of 140 pounds per barrel charged on a crude still run. Suppose for example that 15 per cent more steam was used than absolutely necessary. A refinery running 30,000 barrels per month would waste 21,000 pounds of steam on the crude stills alone. Without making detailed calculations, it is safe to say that a like amount would be lost on re-running and reducing operations, or a total of 42,000 pounds per day. This quantity of steam wasted at our previous figures, amounts to $8,300 per year.

Measurements Crude

WE all know that the average still man will "give her all she'll take." Furthermore, his measure of the steam is "a quarter turn" or "one spoke" of the valve. Such measurements are crude in the extreme. It is time to get down to facts.

To set up the minimum quantity of steam for a given plant with due regard to quality, requires some careful testing. Assuming present conditions satisfactory, establish carefully how much steam is being used. The easiest way is to by-pass the water traps in the running lines and let distillate and

Sell
Keen & Woolf
Lubricating Oils

Because

Our Heavy and Extra Heavy Special Pale Oils will be attractive to your trade both in Appearance and Quality.

KEEN & WOOLF OIL CO.
Refiners for Jobbers Houston, Texas

water flow together through the lookbox. Catch a sample in a 500 or 1000 c.c. graduate and measure the water.

Then reduce the amount of steam 10 or 15 per cent and have the laboratory take samples of distillates and stock and see that the odor, color, etc. are not impaired. If satisfactory, make a further reduction. A point will be found to which it will be unsafe to go. Thus a standard is established for the conditions encountered.

Once established, how can this standard be maintained? If left to the turn of a valve, conditions will soon revert to the original. A small indicating flow meter inserted in the steam line leading to each individual still is recommended.

Simple Indicating Meters

A complicated recording device is not wanted, but there are on the market simple indicating meters that can be installed at very nominal cost. When installed, check them occasionally by measuring the water in the stream.

While on the subject of stills, the question of steam stills deserves attention. I am not an advocate of steam stills, holding that modern equipment using direct fire will accomplish the results more economically. Nevertheless, they are a recognized piece of equipment and if we run them, we should do so intelligently.

It is surprising to see how many refiners depend entirely upon open steam sprays in the still. The use of closed coils properly trapped is strongly recommended. Depend upon the closed coil to supply the heat and use only enough open steam to lower the vapor tension and help sweeten the oil. Then all of the latent heat of the steam from the coils is turned into useful work.

With open sprays alone, particularly at the end of the run, a large proportion of the steam "blows through" and goes to the condenser with the distillate. The heat given up by a pound of steam passing through the oil is only 3 to 4 per cent of the heat given, if the same pound of steam is condensed. Furthermore, the load on the condensers is increased resulting in the necessity of more water circulated.

Steam For Power

After the stills, the next place where quantities of steam are used is in engines, pumps and compressors. These prime movers return approximately an equal number of pounds of exhaust steam. I wonder if it is thoroughly understood how much heat there is in this exhaust. Neglecting moisture, one pound of exhaust steam contains 96 per cent as many heat units as does one pound of live steam at 100 pounds gauge pressure. Are we any more justified in wasting this heat than we are that contained in live steam?

If no other means are available, a portion of this exhaust steam should be used to preheat boiler feed water, and a refinery with feed water under 210° should take steps to see what is the matter. The balance of the exhaust should be utilized for heating build-

Field Methods

are described in detail by Messrs. Cox, Dake and Muilenburg in their book entitled FIELD METHODS IN PETROLEUM GEOLOGY.

It tells about the instruments commonly used in field work and instrument methods employed; the personnel of the field party; the actual field procedure; the preparation of the map and final report.

This is a pocket edition of 305 pages and costs only $4. Mail your check to—

National Petroleum News

823 Caxton Building **Cleveland, Ohio**

ings, hot tanks, etc., and not a pound should be allowed to escape.

I presume some of you are thinking this idea may be all right, but we tried it on such and such, and had to go back to live steam. If so, let us ask the question—"Was the failure due to the exhaust steam or due to the equipment in which we tried to use it?"

Larger Pipe Required

To convey exhaust steam requires larger pipe than for live steam; also for a given amount of radiation slightly more surface is needed. Then allowance must be made for fluctuations in the quantity of exhaust steam available.

The solution is to modify the mains and coils and then install a pressure regulating valve in a by-pass between the live and exhaust steam systems.

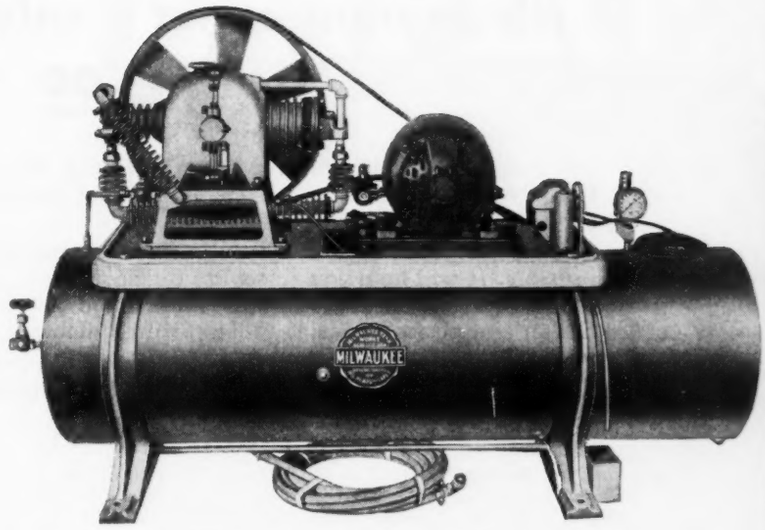
Let us carry the use of exhaust steam a step further. Why not use it in the stills? The problem is simply to get enough volume into the still to accomplish our purpose. The pressure back of the control valve rarely exceeds, or at least should not exceed, 5 or 6 pounds. Why carry 60, 70 or 100 pounds on the main? Again, it is a question of coil and header design only. Five plants coming under my direct observation are operating their stills on exhaust steam and have been doing so for various periods up to nine years. Several other large modern plants are reported to be so operating.

One feature of introducing exhaust steam into stills must be thoroughly understood. Exhaust steam carries considerable moisture and is lower in temperature than live steam. In running to stock, let us assume that the average temperature of the oil in the stills is 425° during the period while steam is being introduced. Exhaust steam is around 225° in temperature. Obviously, its introduction retards distillation, while the steam is superheated and the moisture is evaporated.

To go back to our previous figure of 140 pounds of steam per barrel, a 500-barrel crude still will take 70,000 pounds of steam during the run. To dry the 5 per cent moisture and superheat 200° will require 9,590,000 B.t.u. which heat is robbed from the oil and must be made up by firing more fuel. At 25 per cent still efficiency (a lamentable but approximately correct average) 1½ extra tons of coal are required during the run.

Furthermore, the distillation is retarded. Anything that retards distillation and results in longer exposure of the oil to heat, is detrimental to color and quality.

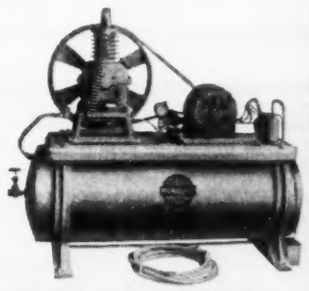
Therefore, if exhaust is used, it should first be superheated to a temperature as high as can safely be used; 450° to 500° is all right. Tests have shown that 12 per cent of fuel is saved, and 20 per cent better time made when running with the steam superheated. Furthermore, a better quality stock results on account of the shorter time that the oil is exposed to heat. As to the cost of superheating, there is no operating



Over-Size Air Service [Costs Less]

Milwaukee Tank Works Air Compressors give more in trouble-free service and dollar for dollar value than the "production jobs" flooding the market.

Extra rugged, over-size construction provides durability and the quality to "stand the gaff" of heavy demand. Clean, dry air, no tank condensation, positive filtering, and other dominant features are advantages not found combined in any other one type.



Type No. 600 Double Stage Air Compressor is especially designed for heavy, continuous duty. Type No. 601 Single Stage is adapted to locations of average demand. Both are driven by a ¾ H. P. motor.

Write at once for prices

MILWAUKEE TANK WORKS
Milwaukee — Wisconsin

MILWAUKEE TANK WORKS

HEADQUARTERS for STATION EQUIPMENT

Gasoline And Other Motor Fuels

by Ellis and Meigs, is a book which gives a complete survey of the field and a description of practically every process of prominence.

The price of the book is $10. Just send us your check and we will mail a copy of it to you.

NATIONAL PETROLEUM NEWS
807 Caxton Bldg., Cleveland, Ohio

It's fast, dependable, attractive and will last a lifetime—it's guaranteed yet it only costs—

$115.00

Royer Model G enclosed

quick and sure, mechanically right the Royer Model "G" is exceptionally well suited to the needs of a filling station requiring 100% service day in and day out.

Skilled workmen, keen economy in manufacture make this low price possible. It will help you to realize quicker profits. It costs less, never falls down on the job. Truly a pump equal in capacity, durability, design and performance to those costing much more.

We want you to try it out on 30 days approval—you'll find it the best installation you ever made. Read over these specifications.

SPECIFICATIONS

Operation: Hand or straight air. Ten gallon size. Height 9 ft. Specifications. 1½" geared Blackmer pump. Ten-foot length best metal lined gasoline hose with self-closing shut off valve at end of hose, aluminum tubing used in glass bowl; sixteen gauge metal housing. Height from base to glass cylinder 69 inches. Pump firmly supported by three standards.

Order your Royer Model "G" today—25% with order, balance, sight draft with bill of lading F. O. B. St. Louis, with 30 days approval—Remember it's guaranteed.

We handle a complete line of compressors, pumps, tanks, tubes and supplies.

Write, wire or phone today.

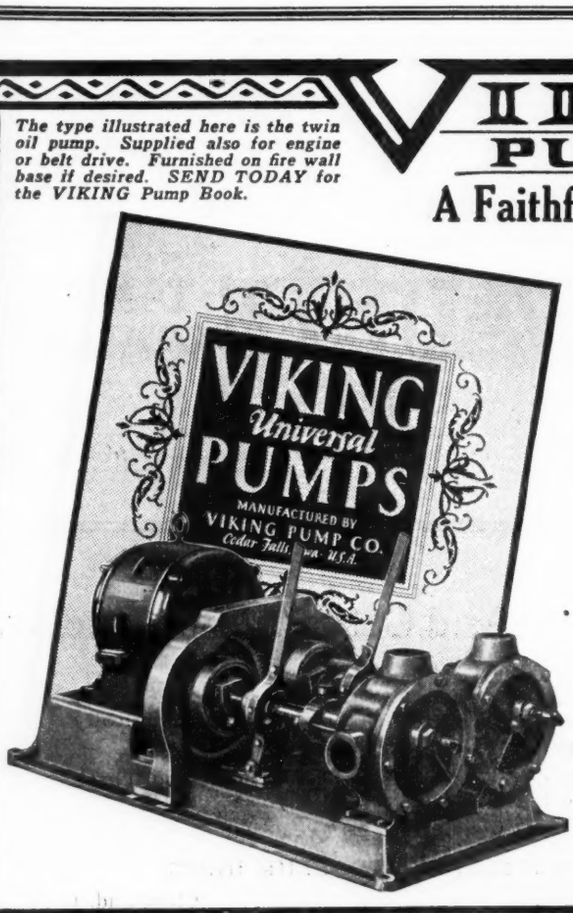
Royer Model G Casing removed

ROYER PUMP & EQUIPMENT COMPANY

1708 South 3rd Street **St. Louis, Mo.**

VIKING PUMPS

The type illustrated here is the twin oil pump. Supplied also for engine or belt drive. Furnished on fire wall base if desired. SEND TODAY for the VIKING Pump Book.



A Faithful Viking Means Low Pumping Cost

THE installation of a Viking brings an end to pump troubles and study.

Greater capacity—a larger flow—is possible with the Viking because of the improved rotary principle. Over a period of several years this involves quite a saving in overhead. Less power is required for the VIKING. Another saving.

But most of all, the Viking will win your admiration by its year after year service without interruption. With only two moving parts, this dependable pump does day in and day out duty with never a halt for repairs. A Viking does offer you a saving in costs in many ways. Any of the two-inch Viking Pumps will unload an 8,000 gallon car of oil in one hour and thirty minutes.

Our large illustrated catalog will be mailed you promptly. May we have your request?

The Viking won highest award at Panama-Pacific Exposition.

VIKING PUMP COMPANY

Dept. 21, Cedar Falls, Iowa

B. F. Schirmer Co., Inc.	342 Madison Ave., New York, N. Y.
Viking Pump Co.	549 W. Washington Blvd., Chicago, Ill.
Viking Pump Sales Co.	204 Grand Ave., Milwaukee, Wis.
Viking Pump Co. of Canada, Ltd.	Walkerville, Ontario
Menge Pump & Mach. Co., Ltd.	862 Tchoupitoulas St., New Orleans, La.
De Laval Pacific Co.	61 Beale St., San Francisco, Cal.
Kerr Machinery Corp.	Kerr Building, Detroit, Mich.
Hayes Pump & Machinery Co.	94 Pearl St., Boston, Mass.
The Schirmer Co.	750 Prospect Avenue, Cleveland, Ohio
Southern Engine & Pump Co.	Houston, Texas
Power Equipment Co.	Oliver Building, Pittsburgh, Pa.
Walter H. Eagan & Co.	Stephen Girard Bldg., Philadelphia, Pa.
Walter O'Bannon Co.	519-21 E. First St., Tulsa, Okla.
Norton Paper Goods Co.	719 Delaware St., Kansas City, Mo.

VIKING PUMPS

The Universal Pump~For Every Use

charge if waste heat is used, and what better opportunity than to use the hot flue gas from the stills?

The same reasoning will apply to the use of live steam in a still, although the savings are not as much due to lower moisture content and higher initial temperature. In my opinion, it will pay to superheat any steam that is used in distillation.

Model Steam Distributing System

With the past remarks in mind, I want to take just a few moments more in depicting briefly a model system for the distribution and use of steam in an oil refinery.

There will be two main steam distribution headers through the yard. One will be under full boiler pressure and will feed all prime movers such as turbines, engines, steam pumps, etc. The other system will collect all of the exhaust steam from the prime movers at 15 to 20 pounds pressure. This exhaust will be conveyed to a central point where waste heat is available to bring it up to 450° to 500° in temperature and will then distribute it to stills, heating coils, refrigerating machinery, etc. Between the two systems will be a positive acting automatic regulator so that the low pressure mains are maintained at constant pressure.

All conveniently located drips will be returned to the boilers. Any pumps or mechanical equipment far distant from the source of live steam will be electric driven. Electricity will be furnished by turbine driven generators. No particular effort to obtain low water ratings is necessary. Low first cost and reliability are the two first considerations in the choice of prime movers of all kinds for this service.

Thus all the power becomes in reality a by-product of the steam necessary in any case for process work. The only charges against the power costs are supervision, maintenance, depreciation and 7 to 10 per cent of the heat in the steam used. Where this system has been installed, costs for electricity as low as ⅓ cent per K. W. hour with coal at $5.00 per ton have been reported. No central station can compete on this basis.

The above is, of course, an ideal system and cannot be adopted in full at one time by the average refiner. It should be held up as the ultimate goal, and all changes and new installations should be laid out with the idea of gradually developing to the point where all of the economies may be realized.

KENOSHA, WIS.—Donnelly-Hidlay Oil Co. is publishing a monthly house organ which is entitled "White Fire News", according to Eugene C. Hidlay, treasurer.

OTTAWA, KAN.—Lesh Oil Co. has just bought the Rogers Oil Co. of Iola, Kan., including one filling station and bulk storage, reports A. C. Carpenter, proprietor of the former company.

EMPIRE
is a
dependable
source
of supply
for all
kinds of
Petroleum
Products

CITIES SERVICE OILS
ONCE-ALWAYS

EMPIRE
REFINERIES INC.
SUBSIDIARY CITIES SERVICE CO.
GENERAL SALES OFFICES-TULSA, OKLA.

CHICAGO NEW YORK PHILADELPHIA CLEVELAND
ST. LOUIS ST. PAUL KANSAS CITY ATLANTA
NEW ORLEANS FORT WORTH TORONTO

USED OIL EQUIPMENT

If you want to buy it—turn to the classified advertising page at the back of this issue. If what you want is not listed there, why not insert an advertisement of your own next week?

If you want to sell it—follow the same course.

There is a constant market in used oil equipment. Take advantage of the great savings possible, either by selling what you no longer need or buying what you do need.

National Petroleum News
892 Caxton Building Cleveland, Ohio

A Bearish Chronicle of Some Bulls

Being a Parody on the Supply and Demand Report of the Committee of Eleven of the American Petroleum Institute

National Petroleum News

ONE of the most interesting archaeological finds of recent years is a manuscript of ancient Greece unearthed in the ruins of Oleum. It appears to be the source from which Aesop, taking many liberties with the text, derived his story of the Boy and the Wolf. A rather free translation of the manuscript is as follows:

.....

There was once a great and prosperous nation, with a vast expanse of territory in which were many forests. In these forests ranged a strange breed of cattle. In the early history of the country little or no attention was paid to these cattle and little was known concerning them, but, as time passed on, it was discovered they were immensely valuable for their hides and flesh, the hides furnishing leather for shoes, the flesh food, and the fatty substances were used for heating and lighting.

THE use of the cattle rapidly increased until there was a great industry built up around their capture and slaughter, and the manufacture and sale of their products. Information as to the nature of the cattle, their habits and distribution became of prime importance and an entirely new profession grew up, whose members occupied themselves with finding out all that could be learned concerning the peculiar cattle and their habits, habitat and methods of capture.

As time went on some important facts were discovered about the cattle. It was found that they inhabited certain forests and were apparently absent from other forests of the same general characteristics, and that no one could tell exactly whence they came or exactly how they got where they were, although much papyrus and many styles were used in attempting to unravel these mysteries.

The most important discovery about the cattle, however, was that they were all bulls—and therefore non-reproductive and not self-perpetuating.

Early in the history of the industry, the bullologists, as those who busied themselves with the study of the interesting animals came to be called, pointed out this fact and expressed alarm over the possibility of all the bulls being killed before the nation had progressed sufficiently to get along well without them.

This warning was repeated from time to time, with increasing emphasis, until it attracted the attention of those engaged in the slaughter and preparation of the bulls for market, who immediately began to reason thusly, "Have we not always had bulls? Will there not, consequently, always be bulls?" and, "Is it conceivable that the Lord has not provided amply of creatures so necessary for our welfare as are these bulls?—surely He has."

The entire industry thus became divided into two camps, one known as the Nearlyexhaustedbulls and the other as the Alwayshavebeen-alwayswillbebulls, or the Lordwillprovidebulls.

At about this period the bullologists, most of whom belonged to the Nearlyexhaustedbulls, became further alarmed by the increasing numbers of a species which, in its outward appearance, resembled the ordinary cattle, but which proved to be of entirely different character. This species became known as the damdeepdryholicus (Lat. deeptestus negativus). In its lifetime it resembled in all ways a true bull; but when shot it proved to be, instead of a dead bull, a dead expense with no available products.

It was discovered that many forests, which were apparently favorable for bulls produced only the damdeepdryholici and that the members of this species, always present along with the true bulls, constantly increased, even in the forests where the true bulls ranged thickest.

These facts were taken by the Nearlyexhaustedbulls as evidence of the truth of their contentions, but had no effect in driving the Lordwillprovidebulls from their position. This position, in fact, was strengthened by the findng and killing of a considerable number of enormous bulls at the same time, so that the supply of bull meat, hides for shoe leather and tallow for candles was more than the nation could digest, and the products became of little value to their producers, and profits in the industry became nearly or quite lacking. This condition was not taken by the Nearlyexhaustedbulls as proof that they were wrong. They merely argued, "The more bulls killed, the fewer left to kill."

The quarrel between the Nearlyexhaustedbulls and the Lordwillprovidebulls finally came to the attention of the ruling powers of the nation, so that the High Chief of the country appointed a chosen body of his counsellors to inform themselves as to the true conditions of the bull industry, so that they could in turn inform him as to what steps, if any, should be taken for the preservation and conservation of the so-valuable bulls.

THESE counsellors, thinking that the best means of finding out about the situation was to ask the people who were acquainted with it, wrote many letters to the people of the industry, somewhat in this wise;

> Be it known that our supply of bulls is considered to be of vital importance to the nation.
>
> Now, there have come to the ruling powers certain disquieting rumors as to the possibility of this supply becoming exhausted. Furthermore, it is rumored that not all the meat is recovered and that there might be improvements in the methods used in skinning.
>
> In view of the great importance of this subject, will you not please give us information on these questions as to whether we may depend on our neighboring tribes for a supply of bulls in case our own are exhausted.

Many individuals answered the inquiries at great length and the Great Gathering of the Cattle Men appointed a Committee—all members of which belonged to the Alwayshavebeen-andalwayswillbe—or the Lordwillprovidebulls faction—to make a final and complete report to the counsellors.

After weeks and months of travail, and with the assistance of many learned and scientific members of their staffs, and some others, they produced a report covering nearly three hundred (300) sheets of papyrus. This report is commented on at length by the original author, but on an added sheet is summarized, possibly by Aesop, as follows: To the Councilors:—

We have received your inquisition with a joy equalled only by that caused by finding fifty (50) damdeepdryholici in succession.

We are highly pleased to submit the following conclusions, although we believe that our time could have been better employed on something constructive.

1. There is no danger of the bulls all being killed this week.

2. There are plenty bulls for all time and all necessary purposes.

3. There will be shortages of bulls some time. This condition will be rectified by price which has increased the production of bulls ten (10) times in twenty-five (25) years and doubled it in ten (10) years, although the prices have been very steady.

4. We have four (4) day's supply of bulls in our corrals; two (2) days' supply

NATIONAL PETROLEUM NEWS herewith publishes the parody on the Supply and Demand report of the Committee of Eleven of the American Petroleum Institute, which parody has had a limited surreptitious circulation in oil circles the past three or four months. The authorship must remain anonymous as far as this publication is concerned.

The Archy on Bull Stories, carried in the Feb. 10th issue of National Petroleum News, was an equally clever reply to this "Bearish Chronicle of Some Bulls," in a different literary style.

known to be present in adjacent forests; and one (1) day's supply in more distant forests which we can capture if it is worth our while.

5. If we should run out of new bulls, the industry has with foresight accumulated a reserve of twenty-six billion (26,000,000,000) bull bones, some of which still have considerable meat on them. The state of preservation of these bones may be questionable, but it is thought that improved methods will make them available for soup and sole leather. Already some of our crooks have scraped the marrow from some of these bones and prepared a palatable soup from it. It is thought that the preparation of sole-leather is a logical step to follow the soup.

6. We have not penetrated the innermost recesses of our bull-bearing forests, and unknown numbers of the animals must lurk in these depths, and we can acquire them if, and when, the price justifies.

7. Undoubtedly the number of bulls in the forests which have so far yielded none greatly outnumber those we have already found. Several thousand shots have been taken at supposed bulls in these forests but they have all turned out to be damdeepdryholici (Lat. testi Negativi.) For this reason and because none has ever come out, we are convinced that there are countless bulls still in these forests. The area of these hitherto bull-less forests is simply enormous, constitut'ng fifty-six (56) per cent of our area and comprising a total of one billion one hundred million (1,100,000,000) perhapses of land. The remaining forty-four (44) per cent of our country is open prairie as anyone can see that there are no bulls there.

8. In case of the utter depletion of our reserves, the nation has an inexhaustible supply, three hundred ninety four billion, (394,000,000,000) dogs, seventy five billion (75,000,000,000) cats and at least five hundred twenty five billion (525,000,000,000) rats. The actual number of rats greatly exceeds this estimate, probably running into the trillions, but we cannot catch all of them. The only factors required to render these enormous reserves available and to make them an integral part of the bull business are new methods of capture, slaughter and utilization, a fundamental change in the appetites of the consuming populace, and conditions under which cost is no factor.

9. Some of our neighboring tribes have some bulls.

10. To properly avail itself of these bull reserves, the nation must understand that the men in this industry must be allowed to do as they please; that the public must be prepared to pay them for doing so; and that people who run ferryboats must stay on the water and not meddle with bulls.

11. If the price goes so high that the people use only half as many bulls, the supply will go twice as far.

12. The bulls may also be made to go further by converting all of them into tallow candles and none into sole leather.

13. The processes of capture, slaughter and utilization are perfect, and are undergoing rapid improvement. There is no waste of bull meat and what there is is being eliminated.

.....

Translator's Note:—

Unfortunately, the remainder of the manuscript is so badly mutilated that it is, for the most part undecipherable. One small fragment seems to bear the name of the chronicler, which is, as nearly as it can be made out, A. Nearly Exhaust Edbull.

It is unfortunate that the manuscript ends before we know how the report was received by the Great Gathering or by the Councilors; also the point of supreme interest, whether or not a shortage of bulls did develop and, if it did, what happened to the nation, is undetermined.

However, in the story of the Boy and the Wolf, which is undoubtedly based on this chronicle, the wolves ate up the flock immediately after the neighbors had decided that there were no wolves. It is possible that the manuscript was in better condition in Aesop's time and that he could read the end of the story. In this case we can only express our sympathy for the unfortunate nation deprived of its vital supply of bulls.

Mitchell County Texas, To Have Gasoline Plant

HOUSTON, April 16.—The California Co., operating subsidiary in Texas of the Standard Oil Co. (California) is erecting a 2-unit combination absorption and compression plant in the Westbrook territory, Mitchell county, for the recovery of natural gasoline. The gas in the Westbrook area, totalling about 400,000 cubic feet daily available, has been found to test five gallons to the thousand cubic feet.

The natural gasoline recovered through the California Co.'s plant will not be marketed as such, at least not for the present, being turned back into the crude oil pipe lines and handled through the Colorado City refinery owned jointly by the California Co., and the Anderson-Pritchard Oil Corp.

A number of natural gasoline tests on wells of various operators in the Texas Panhandle (Amarillo district) show the following possible recoveries:

No. 1 Elmer well of Angus Sheddon, northeast quarter of H&GN sec. 70, block 13, Wheeler county, gas flow 20,000,000 cubic feet at 2296 feet, 2.13 gallons per thousand.

No. 1 Simmons of Vaughn & Pendleton, southwest of the southeast of H&GN sec. 77, block 17, Wheeler county, 12,000,000 cubic feet at 1875 feet, 1.98 gallons per thousand.

No. 1 Williams & Laycock of Whittington et al, center of south half of H&GN sec. 6, block 27, Wheeler county, total depth 2280 feet, 1.70 gallons per thousand.

No. 1 Phillips of J. Rook et al, H&GN sec. 24, block 41, Wheeler county, total depth 2296 feet, 5.82 gallons per thousand cubic feet.

The Petroleum Register

Mid-Year Edition 1925

can give you information on 10,000 companies in all branches of the oil industry —names, addresses, officers and properties.

Some of the classifications are:

525 Refiners
3,000 Marketers and Jobbers
3,500 Producers of Crude
425 Compounders
700 Natural Gas Manufacturers
1,750 Equipment Manufacturers
72 Oil Associations
675 Drilling Contractors
750 Foreign Companies
175 Grease Manufacturers
533 Natural Gas Plants and Capacity

It also includes 53 pages of maps and a list of 1,300 trade names.

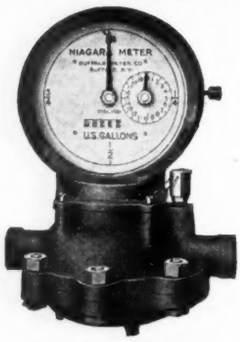
National Petroleum News
803 Caxton Building, Cleveland, Ohio

Here is my check for $7.50 for the Mid-Year Edition of THE PETROLEUM REGISTER

Name ----------

Address ----------

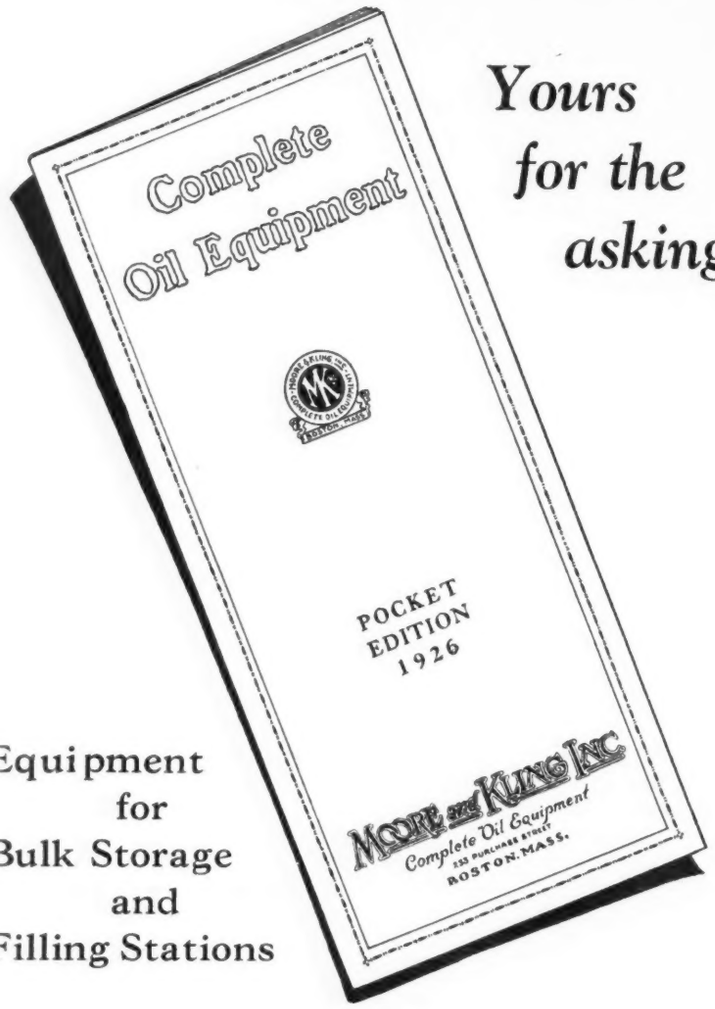
NIAGARA GASOLINE METERS



quickly pay for themselves by detecting waste or theft of oil. There are types for all uses, on gasoline, kerosene, lube oil, or fuel oil. Write us—get a catalog—find out for yourself.

BUFFALO METER CO.
2889 Main St. Buffalo, N. Y.

Have you received your FREE COPY?



Yours for the asking

Equipment for Bulk Storage and Filling Stations

MOORE AND KLING, INC.
233 PURCHASE ST. BOSTON, MASS.

Bevier Houston Manager For Pure Oil Co.

George M. Bevier

Staff Special

HOUSTON, April 17.—Pure Oil Co., of Columbus, Ohio, has opened a Gulf Coastal land and geological office at 305 Mason building, Houston, in charge of George M. Bevier, formerly a geologist and geophysicist with the Atlantic Oil Producing Co., at Houston.

The Pure plans to extend its Gulf Coastal operations, which hitherto have been virtually confined to drilling in the Sweet Lake district of southern Louisiana, where it completed one gasser and one small oil well at depths below 4500 feet.

While with the Atlantic, Mr. Bevier last year conducted seismograph work in Mexico before returning to the States and carrying on similar investigations in Texas.

The transfer of R. L. Andrews, land man, from the Mexia offices of the Pure to the Houston office is announced. W. R. Smith, civil engineer formerly with the Republic Production Co., at Houston, also has been added to the new office.

R. W. McIlvain, vice president of the Pure in charge of producing activities, and Theron Wasson, chief geologist, were Houston visitors from Columbus in connection with the opening of the new office.

BRADFORD, PA., April 15.—Bradford Oil Refining Co. is planning installation of Sharples dewaxing and filter plant this year.

FRANKLIN, TEX.—Glen Scott is installing storage tanks here.

Reduce Down Time and Boost Production Here's a Way to Check up on It

By A. F. Hinton

N. P. N. Staff Writer

TULSA, April 17.

ONE of the most important phases of production work is concerned with the reduction of down time on pumping wells. It is an important phase because when a well is down it is not making oil and the oil production lost through down time is probably never wholly recovered. Thus, if the well is a small producer, and making only a little oil at best, so that its economic value depends principally upon the regularity and steadiness of its output, it does not take much idle time to put it on the red side of the ledger.

The approach to the problem of reducing down-time losses necessarily involves a study of the causes of the trouble which put the well on the idle list. Through a careful analysis of well troubles over a period of time, coupled with a comparison of similar troubles on other leases of like producing characteristics, the operator is enabled to determine whether, in each case, old worn out material, defective material, or inadequate supervision is responsible. Having found the cause he can usually take steps that will remedy the situation to a large degree.

Shaffer Oil & Refining Co. is one company that is now making a close study of its down time losses, and is succeeding in reducing them materially through this work. Richard K. Huey, general superintendent of production, has designed a series of forms now in use by the company, and reports that the men in the field have taken a great deal of interest in the work. Some of the forms used by the company in its work of analyzing well-trouble causes are reproduced with this article.

Fig. 1 is a daily shut down or idle time report, which is made out in triplicate each day by the lease foreman. The original goes to the Tulsa office, one copy to the district superintendent, and one is retained by the lease foreman for his record. The form is sent out to the lease foreman in a pad with perforations for tearing out sheets, and with the different colored sheets for copies placed in their proper order.

This report, which shows only wells which have had trouble during the day, gives a complete record of the number of hours each well was down, together with the reasons for the idle time, 14 varieties of well troubles have been listed, with an extra column for miscellaneous ailments. The well's normal daily production is shown, this figure generally being an estimate on leases where individual well gauges are not kept. The form also shows the usual pumping hours for each well. Thus, if a well usually pumps only six hours daily, it may be down during part of the day when it is not being pumped, getting back on production in time to do its regular turn of duty with only partial loss of production.

The last four columns of the form show production lost by the well's down time during the day, the hours it was pumped, for comparison with its normal pumping time, the total hours it was shut down, and the lost

6

DATE 4/7/26

Harjo LEASE **SHUT DOWN or IDLE TIME REPORT** TODAY'S PRODUCTION 324

TOTAL HOURS DOWN FOR — NORMAL LEASE PROD. 400

Well No.	Normal Oil Production	Normal Water Production	Usual Pumping Hours	Pulling Rods	Pulling Tubing	Failure of Fuel or Electricity	Counterbalance Trouble	Broken Sucker Rods	Unscrewed Sucker Rods	Belt Trouble X	Rig Trouble X	Motor Trouble	Engine Trouble	Cleaning Out	Broken Shackle Lines	Jack Trouble	Central Power Down	Miscellaneous X	Speed	Stroke	Production Lost	Hours Pumped	Total Hours Shut Down	Lost Productive Hours
1	5	50	7		9														14	28	5	0	9	7
3	7	15	7												10				14	26	6	3	10	4
4	4	60	22															6	14	24	4	18	6	4
5	30	120	24	5															22	26	30	19	5	5
7	15	50	24				2												17	26	8	22	2	2
8	12	30	8										14						20	22	5	4	14	4
14	8	20	12												6				15	27	5	6	6	6
16	20	75	24										6						20	32	10	18	6	6
20	5	20	24					12											16	20	3	12	12	12
22	6	15	6							2									16	20	0	6	2	0
	112		158	5	9		2	12		2			20		16			6			76	108	72	50

× Remarks: Well No.4 repairing leak in 6⅝" casing
Well No.22 repairing broken belt

SIGNED: John Jones (Lease Foreman)

Fig. 1. Shaffer Oil & Refining Co. form for daily report of wells down on account of trouble.

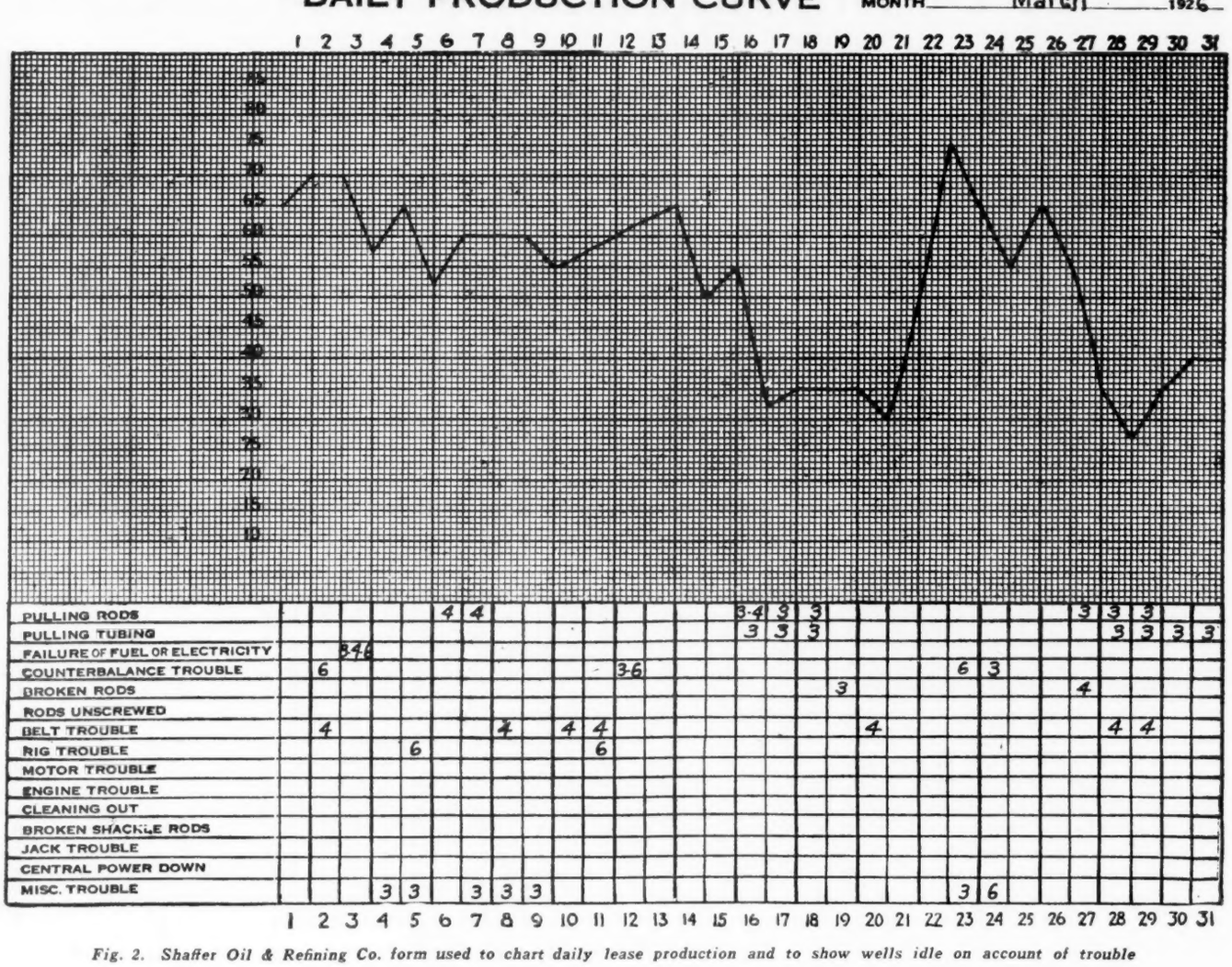

LEASE Smith 40 Ac.
DAILY PRODUCTION CURVE
MONTH March 1926
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
PULLING RODS
PULLING TUBING
FAILURE OF FUEL OR ELECTRICITY
COUNTERBALANCE TROUBLE
BROKEN RODS
RODS UNSCREWED
BELT TROUBLE
RIG TROUBLE
MOTOR TROUBLE
ENGINE TROUBLE
CLEANING OUT
BROKEN SHACKLE RODS
JACK TROUBLE
CENTRAL POWER DOWN
MISC. TROUBLE

Fig. 2. Shaffer Oil & Refining Co. form used to chart daily lease production and to show wells idle on account of trouble

productive hours, this last being the item that the company is striving to reduce on all its leases. In order to facilitate other studies the company's engineers have been making as to proper stroke, speed, and counterbalances on all its pumping wells, the form also shows for each down well the speed and length of stroke used in pumping the well.

In the case of belt troubles and rig troubles, the man making the daily report is required to note at the bottom of the sheet the details of this trouble.

Where a well's down time comes under the head of miscellaneous, he also must describe the trouble more fully in the space at the bottom. The sample report shows with this article, (Fig. 1) which does not show actual conditions on any particular lease, was filled out so as to show manner of handling the report as to different classes of wells, pumping from six to twenty-four hours daily.

The form shows that wells were down for varying periods of time and for various causes during the day and that the lease's production was 324 barrels as compared with a normal output of 400 barrels. The normal oil production of the 10 wells that had trouble was 112 barrels, but the actual production lost was 76 barrels. This is explained by the fact that some of the wells, although down during part of the day, were put back on production in time to make at least a portion of their normal output. One well, shown as No. 22, was off two hours on account of repairing a broken belt, but lost no production and had no lost productive hours, as it was a well that was pumped only six hours daily.

All of these wells' normal pumping time adds up to 158 hours, but they were actually pumped 108 hours, the difference, 50 hours, being the lost productive hours of the day. It will be noted that the total shut down time was 72 hours, but not all of these were productive hours. The chart shows that the greatest single factor in this particular day's down time was engine trouble, 20 hours being charged up to this difficulty. It will be noted that well No. 8, which was down 14 hours on account of engine trouble, was an eight-hour a day pumper making 12 barrels of oil a day, but it was actually pumped four hours and lost four productive hours.

In addition to keeping up the idle time report, the lease foreman also is required to keep a daily production record in the form of a curve or chart, shown as Fig. 2. The foreman subdivides the chart vertically according ot the range of production on his lease, platting each day's output under the days of the month as indicated along the top of the chart. On the lower portion of the form, differences in production from one day to another are explained by showing which wells were off on that day, and giving the reasons for their being off. For instance, on the 2nd of the month, well No. 6 was off with counterbalance trouble and No. 4 was off on account of belt trouble. On the next day, wells 3, 4 and 6 were off on account of failure of fuel or electricity. Details of this trouble would be found on the daily down-time report shown in Fig. 1.

This production curve is furnished to the lease foremen in pads, perforated so that the original can be torn out at the end of the month, when it is sent in to the Tulsa office. The

foreman keeps the copy, which is printed in yellow, in his book for the lease record. This chart shows almost at a glance which well is giving the greatest amount of trouble on the lease and the effect of its down-time on the lease's production. By referring to the daily idle time report, it can be ascertained what is giving the well so much trouble.

Once a month, on about the 15th, the foremen send in the idle time reports filled out as to every well on the lease, whether it was down or not, thus giving a monthly check on the performance of each well. This goes in as one of the regular daily reports, the wells that were not in trouble showing up with zeros in the "hours shut down" and "lost productive hours" columns The daily production curve sheet also goes in once a month, being checked in the Tulsa office against a similar sheet kept there during the month, and made up from the daily idle time reports. The office work in connection with this system of keeping a check on well troubles has necessitated the employment of one additional man in the Tulsa office, at small expense compared with the benefits to be derived from the work.

As the daily idle time reports come in from the various leases, the recorder in the Tulsa office adds up the hours lost on account of different well troubles and carries the total on through each day. At the end of the month he has a record of how many hours were lost on each lease on account of each of the many ailments that afflict pumping wells, and he also has the total production lost and the total loss of productive hours. This information is placed before the general superintendent on the form shown as Fig. 3, which is a summary of down time and the reasons for it on each lease during the preceding month. This is carried farther and all the leases in a certain district are added together and entered on another sheet the same as Fig. 3, this giving the down time and the rest of the information by districts, instead of by leases.

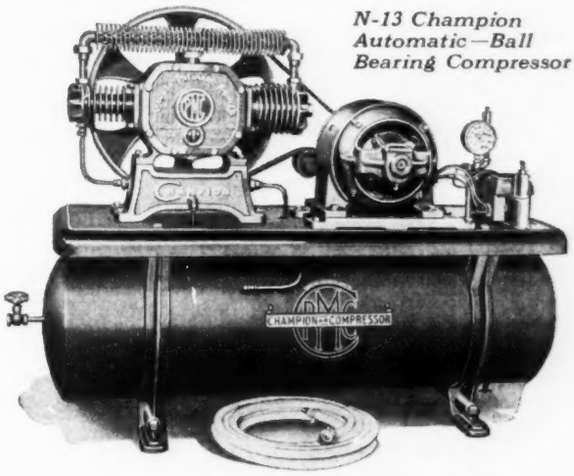
CHAMPION

features you should know about—

Ball-bearing Main Bearings
One-piece Cylinder and Head Casting
Rigid Piston Assembly
Trouble-proof Plate Valves
Non-pulsating Check Valves
Automatic Pressure Unloader
Automatic Controller
Sliding Motor Base
Ventilating Intercooler
Positive Oiling System
Patented Filtering Trap
Fan Blade Fly Wheel
—these are only a few of the many features that are responsible for the fact that Champion serves best and longest.

—write for new catalog

Champion Pneumatic Machinery Co.
8168-So. Chicago Ave. Chicago, U. S. A.



N-13 Champion Automatic—Ball Bearing Compressor

Single and Two Stage
Air Compressors

SHUT DOWN OR IDLE TIME REPORT

Month of _____ 192__

Lease Name	No. of Wells	Normal Oil Production	Actual Oil Production	Production Lost	Normal Water Production	Total Hours Down For: Pulling Rods	Pulling Tubing	Failure Fuel or Electricity	Counterbalance Trouble	Broken Sucker Rods	Unscrewed Sucker Rods	Belt Trouble	Rig Trouble	Motor Trouble	Engine Trouble	Cleaning Out	Broken Shackle Lines	Jack Trouble	Central Power Down	Miscellaneous	Total Hours Shut Down	Lost Productive Hours	Remarks

Fig. 3. Shaffer Oil & Refining Co. form used for monthly summary of down-time and reasons therefore, by leases and districts.

Individual Well Gauges so Valuable That Tank is Added to Battery

Staff Special

CLEVELAND, O., April 17

"WE KNOW at the end of each month whether a well is paying for its keep, or not."

Of every oil property that statement, by W. D. Stoughton, superintendent of the central Ohio producing division of the Pure Oil Co., cannot be truthfully made. Mr. Stoughton makes this assertion in the course of a letter prompted by the article published in the March 31 issue of National Petroleum News. That article discussed the value of individual well gauges and told of some of the methods in use for taking them.

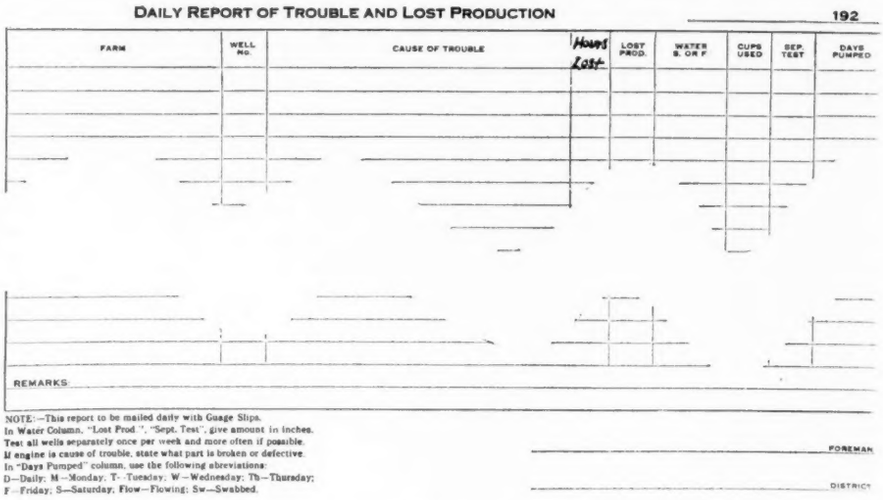
"Some six years ago, the estimate or guess method was in use in our division", said Mr. Stoughton. "This estimate was made once a year. I knew the inaccuracy of this system, because no pumper can tell how much a well makes by watching it pump into the receiving tank or by counting strokes of the pump or by timing it by the watch. It is guess work, pure and simple, and of practically no value, as to the showing the individual merits of the well.

Set Extra Tank for Gauge

"I KNEW the value of individual tests from experience in the Cabin Creek field in West Virginia. In the central Ohio field it was rather a difficult problem, as we had in many instances several wells pumping into one receiving tank at the same time. It was not practical to place a separate tank at each well on account of the expense of re-arranging lines and purchasing extra tanks and, in many cases, of installing a pump to get the oil to the central receiving or storage tanks. We use entirely 100-barrel steel tanks. Finally, we hit upon the plan of adding one extra 100-barrel tank to each battery of tanks on a farm. By this arrangement we get a separate test once a week on all of our wells, being careful to gauge the water as well as the oil and note also whether the water is salt or fresh. Tests are made weekly except in the case of some light, shallow wells, which we test separately every three months. These are gauged by pumping directly into a barrel placed at the well."

Here is the method adopted in this division of the Pure Oil Co. for verifying the information gained by the weekly tests:

"The accuracy of these tests is checked in the following manner by our office force: All tests for each well are kept in a record especially provided for this purpose. At the end of the month, the several tests are added for each well and divided by the number of tests made during the month. This gives the average for the month. If a well is pumped 26 days in a month, we multiply the 26 days by the average test per month. This should give us the actual number of barrels the well has made during the month, provided the separate tests are correct. This correctness is easily determined by comparing the result with the daily gauge slips. A daily trouble report is made out each day by every district foreman."



DAILY REPORT OF TROUBLE AND LOST PRODUCTION 192

FARM	WELL NO.	CAUSE OF TROUBLE	Hours Lost	LOST PROD.	WATER B. OR F.	CUPS USED	SEP. TEST	DAYS PUMPED

REMARKS:

NOTE:—This report to be mailed daily with Guage Slips.
In Water Column, "Lost Prod.", "Sept. Test", give amount in inches.
Test all wells separately once per week and more often if possible.
If engine is cause of trouble, state what part is broken or defective.
In "Days Pumped" column, use the following abreviations:
D—Daily; M—Monday; T—Tuesday; W—Wednesday; Th—Thursday;
F—Friday; S—Saturday; Flow—Flowing; Sw—Swabbed.

FOREMAN

DISTRICT

Form filled out each day by district foremen of Pure Oil Co. in Central Ohio division.

One of these forms used for the daily trouble report is reproduced herewith. The foreman reports on this the nature of any difficulty on any well and sets forth the lost time, lost production on account of trouble. He also reports changes in cups and number used.

Here is an example of the comparison between the individual gauges and the daily gauge slips.

Farm	Well No.	Average Separate Test		No. Days Pumped	Total Bbls. for Month
John Doe	1	3 Bbl.	X	26	78 Bbl.
John Doe	2	2 Bbl.	X	13	26 Bbl.
John Doe	3	10 Bbl.	X	26	260 Bbl.
John Doe	4	1 Bbl.	X	8	8 Bbl.
Barrels produced as per average test					372 Bbl.
Less Lost Production reported during month					16 Bbl.
Balance as per test					356 Bbl.
Actual Bbl. produced as per Daily gauge					354 Bbl.
					2 Bbl. long

Tolerance of 2 Per Cent

"WE allow a variation of 2 per cent, either long or short, as compared with the daily gauge slips," said Mr. Stoughton. "If in any case it runs over 2 per cent, a copy is sent to the foreman and he takes the subject up with the pumper at fault, to determine the cause of the error in the separate test. The production of every farm is figured each month as described above and 98 per cent of our pumpers come within the 2 per cent tolerance.

"We keep an account of each well, the same as a bank keeps an account of each depositor. We know then at the end of each month whether a well is paying for its keep, or not. A daily separate test is better, but in an old field, the arrangement necessary would in many cases be too expensive and we find the foregoing method very satisfactory.

Gives Check-upon Water

"WHERE you have several wells on one farm pumping into the same battery of tanks at one time and water is present, it is sometimes difficult to tell where the water is coming from without a separate test, and the particular well making water may not be discovered until irreparable injury has been done. I have in mind a certain well that was pumped over a year, making all water. This would not have been possible under the separate test system.

"We find, especially among our old wells where the rock pressure is low, that where water breaks in, the well seldom comes back to its original production after being repaired."

Pressure Restoration In Osage Still Unsettled

Staff Special

TULSA, April 10.—Three committees were appointed by the general conference of Osage operators held here on March 31 to discuss the application of pressure to oil sands in the Osage nation. The committees will work on the suggestions brought forward by the oil lessees and seek to work out regulations which will be satisfactory to all interests.

Settlement of the question of ownership of residue gas from natural gasoline plants probably will have to be made by courts. It has been suggested that a test case be submitted and appeals made quickly so that both oil and gas operators will know how they stand.

Oil lessees claim that the introduction of gas to oil sands to restore pressure is a production operation and under the terms of Osage oil leases the residue gas may be used for that purpose without compensation to the gas lessees. Gas lessees assert that the restoration of pressure is not a normal operation and that the gas for that purpose must be purchased.

Both natural gasoline manufacturers and gas lessees object to the introduction of air into oil sands to increase oil production.

The steering committee for the gas lessees is composed of R. L. Gordon, Indian Territory Illuminating Oil Co.; W. C. Franklin, Tidal Oil Co.; Frank Long, Sand Springs Home; H. L. Montgomery, Empire Companies; and G. G. Shallenberger, Kay County Gas Co.

Oil lessees will be represented by Rush Greenslade, Gypsy Oil Co.; Wm. N. Davis, Phillips Petroleum Co.; Burt Collins, Echo Oil Co.; G. S. Rollin, Roxana Petroleum Co.; and James A. Veasey, Carter Oil Co.

Manufacturers of natural gasoline in the Osage will be represented by John Kane, Phillips Petroleum Co.; S. S. Smith, Roxana Petroleum Co.; E. L. Peck, Empire Gasoline Co.; J. R. Freeman, Carter Oil Co.; and C. C. Herndon, Skelly Oil Co.

Hughes to Present Facts in May

WASHINGTON, April 16.—Charles Evans Hughes, as counsel for the American Petroleum Institute will appear before the Federal Oil Conservation Board in the latter part of May on a day to be fixed by Secretary Work, chairman of the board. He is to present whatever data he thinks will be of value to the board, and presumably, make such argument on the facts that have been placed before the Board as he deems appropriate.

In a letter to Secretary Work, Mr. Hughes explained that, on account of engagements in courts he would not be able to appear before the Board until the latter part of May. He left the matter of selecting a day for his appearance to Secretary Work.

'Tradin' Sight Unseen

SCHOOL boys may trade rusty knives and bits of broken bric-a-brac sight unseen, but in serious business keen minded buyers play no such odds. They prefer to see what they buy.

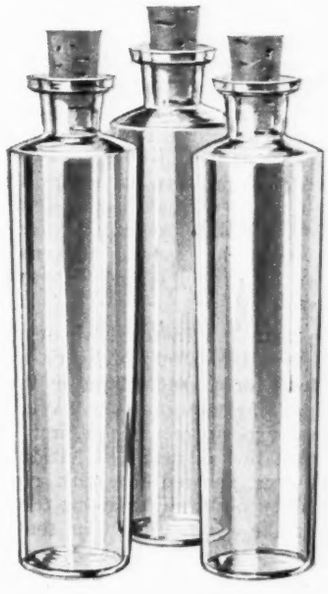
Within the walls of our Sample Oil Bottles your oil asks no odds—it is revealed in all its perfection to the buyer's eyes—creating confidence in its rightness and permitting a ready and thorough inspection.

Our Sample Oil Bottles are made in 2, 4 and 8 oz. sizes and are furnished with either plain or ground and polished bottoms. Permit us to submit samples of these bottles for your consideration.

Illinois Glass Company

Established 1873

ALTON ILLINOIS



Possibilities in Furnace Oil Marketing

By William A. Cahill
Cahill Oil Co., Cleveland
Delivered at American Oil Burner Association at Detroit

WHEN our organization started to furnish oil for home heating in the winter of 1920-21, we were told by other oil men that we were crazy, that they had tried the business and "found it wanting". It was "wanting", without a doubt—wanting someone who would tackle it from an angle different from that of the typical gasoline distributor. Our company, which was then the Buckeye Oil & Paint Co., had never had any experience of any kind with tank wagon deliveries, and had no complexes of any sort. All that we could see was that apparently here was a brand new field, which was not only not overcrowded, but not even occupied.

The gasoline men who had tried this new business in Cleveland—the longest trial lasting about three weeks—had been discouraged by two factors: the first, that the average deliveries were much smaller and harder to make than their average gasoline deliveries; and the second, that the demands for service were more exacting than from gasoline buyers.

Gasoline Rules Fail

MR. Gasoline Jobber found that his rules wouldn't work. Usually, when anything cost more to handle, he simply raised the price. Transmission oil, for instance, was nasty stuff to deal with, but if a man gets a dollar a gallon for something that cost a quarter, he doesn't mind a little messiness. Fuel oil, though, seemed to be different. If he tried to boost the price, he killed the market, because Old King Coal was still very much alive. So you can imagine what happened when Mr. Burner Man telephoned that next time the truck driver would have to be more careful at John Jones's place, just as Mr. Jobber was thinking that it had taken an hour and a half to deliver 55 gallons there through a ¾-inch pipe.

As our company had never had any tank wagon experience, we had no comparisons to make. All we could figure was that it cost so-and-so a gallon for the oil, that it cost such-and-such to deliver it, and that if we received thus-and-thus a gallon from the customer, we could make a little—a **very** little—profit.

Profit on Small Margin

WE started in the business by purchasing a tank truck from a burner agency which had not itself been able to make any profit in the business of supplying oil to its own customers—not a very cheering send-off, by the way. There is no need to tell all that has happened since then, but the outcome has been that we are now operating and making a profit on a margin that is half of what the gasoline distributor considers as the absolute minimum. Our average gross margin last winter—that is, the difference between what we pay for oil in tank cars and what we charge for it in tank trucks—is 1.6 cents a gallon, whereas a gasoline distributor must have more than 3 cents a gallon to meet his expenses.

Our low costs are by no means exceptional. I have no doubt that they can be matched or bettered by many other companies in the fuel oil business, whether they be companies dealing in fuel oil exclusively, or as a side line. In fact, I feel safe in saying that in no other phase of the oil industry is there more real efficiency than in the delivery of fuel oil in tank trucks. If you think that fuel oil prices are too high—and I have never yet met any burner man that didn't—remember that the distributor is doing his best to keep them as low as possible.

Refrain From Frills

IN our own organization we keep cost down by refraining from frills. It does not matter at all to us whether a method or device is customary. All that counts is whether it helps reduce the cost of delivery per gallon. For example, a lot of fun was made of us when we started using Ford tank trucks for a part of our work. However, our cost sheets show that for certain kinds of deliveries the Fords cost less per gallon than anything else. Besides, they enable us to serve our customers better.

It is that element that interests us primarily. It apparently costs us no more to consider our customers' interests first than to consider our own first. One night last fall a man away out on the West Side telephoned for oil to be delivered at once. We had never heard of him before, and the weather was not severe enough to cause any real discomfort. Nevertheless, we delivered the oil at midnight. As a result of that delivery, we secured the good will of a strong burner agency through which we have secured a number of splendid customers. We are firmly convinced that serving the customer the way he should be served pays the best dividends.

With that idea in mind we developed in our first season the delivery system which was for a time unique in the fuel oil branch of the oil industry. We learned from experience in the first "cold snap" that fuel oil users, if left to their own devices, showed the most remarkable faculty of thinking about the same thing at the same time. In that first severe weather in that first winter, I believe that the only thing that prevented all our customers from calling up for oil at the same time was the fact that Edison hadn't yet invented any way for ninety persons to talk over three telephone lines at the same time. We had to supplement our lone tank truck with every kind of conveyance. We delivered oil in drums, milk cans, and even water bottles. We wanted no more of that kind of experience, and worked out our plan of making periodic calls.

The plan is simple. It is simply that a truck calls regularly, such as once a week, at each customer's home, delivering enough oil each time to fill the tank, whether the amount be only a few gallons or several hundred. After a little experience with a customer we learn how long a full tank of oil will last in severe weather, and arrange to have the calls frequent enough to insure an adequate supply for any contingency. We have often had customers whose tank equipment was temporarily small enough to require calls every day, including Sunday.

Emergency Calls Minimized

WITH this system, the number of special calls during any sudden cold wave is cut to a minimum. For example, the largest number of deliveries we have been called upon to make in a single day this winter was 59, only 16 more than the average of 43 a day. The significant feature is that, with scarcely an exception, after we once get a special call from a customer who has run out of oil, we rarely get another from the same customer later in the winter, as we can put him on a schedule which forestalls an empty tank.

Of course, it is inevitable that there will be calls for deliveries besides those made on the regular schedule. On the one hand, there are many customers, particularly those with larger tanks, who want us to make deliveries only when requested, while, on the other there are customers who, for some perverse reason, have not allowed the driver to fill their tanks on his regular trips.

The calls from the owners of the larger tanks usually cause no trouble, as we are able to anticipate them from our knowledge of each customer's oil consumption. If we do not hear from a customer when we think we should, we either telephone him or have a driver working in that neighborhood make a call and check up the amount of oil in order that we can deliver some if necessary.

Two Hours for Trips

ON the emergency calls from people who have run out of oil, the Fords show their advantages. The average time required for a trip by one of these Fords

is two hours. As we know where each driver goes on each trip, we are able to reach him by telephone when a hurry call has been received from his territory, and can get oil to the needy customer in a hurry. If we cannot make a delivery within an hour when necessary, we think we have "fallen down."

To take care of calls at night, we have two drivers who take turns holding themselves in readiness. As we pay extra for overtime, these men are glad to do the extra work. As an illustration of their loyalty and willingness, one of the men had 34 hours of overtime in one week last winter!

The biggest obstacle in the way of perfect service has been the manner in which many burners are installed. I realize, when I say that a burner agency should install a tank and fill pipe that make it easy for the oil men to make deliveries, that is appears as if I am talking only for my own interest. However, I am sure it is very evident that the easier it is for the oil truck driver to do his job, the better he will do it, and the more the customer will be satisfied. If a driver has to take buckets over the grass around a house to the side opposite the driveway—as he does at several places on our list—or if he has to carry the oil into the basement because there is no outside fill pipe, or if the fill pipe is too small, you can see the opportunities for trouble. It is almost incredible that anyone should install an underground tank without a vent, but I know of at least a dozen including one 5000-gallon installation. I can even tell of several places where there is absolutely no way of measuring the oil, where we must either wait until the tanks run dry, or periodically fill them until they overflow.

Why should any oil company be anything but helpful to a burner company? Are not the oil men just as much interested in the satisfactory operation of oil burners as the burner men? They both seek the same ends, because the better the people like burners, the more oil will be sold, and the better the people like oil, the more burners will be sold.

Woman Geologist Marries

Staff Special

HOUSTON, April 16.—The marriage of Miss Laura Lee Lane, Houston paleontologist, and John F. Weinzerl of the North American Exploration Co., was quietly celebrated April 3. Only a few friends were present for the ceremony. The former Miss Lane has charge of the laboratory of Alexander Deussen, vice president in charge of Gulf Coastal operations for the Marland Oil Co. of Texas. Mr. Weinzerl, who at one time was connected with the Marland company, is now doing geophysical work with the North American.

The Stamp of Approval

In Quotation Marks

We have many letters in our files testifying to the value of the Weldco drain. One customer has told us that if Weldco had no other commendable feature he would still buy it for the drain. Expressions such as these are common, "Your drain is the best thing ever put on a truck tank," "The drain satisfies the customer and speeds up deliveries," "All of my drivers want your tanks. Will you take in our old ones and equip with your drain?" "We can get an extra load a day with your tank," "The drain is the reason we bought."

In the last year three large independent oil companies have sent us their old tanks to be equipped with the Weldco drain. We make this statement merely to show their opinion of the drain, not to solicit business of this kind. To equip these old tanks with the Weldco drain, from one third to one half the value of a new tank had to be spent. This is convincing evidence of the value of the Weldco funnel drain.

Write For a Copy of
Our Latest 1926 Catalog

The Youngstown Welding Co.

Welders Since 1912

Youngstown, Ohio

DRAINS LIKE A FUNNEL

WELDCO TRUCK TANKS

TRADE MARK REG. U.S. PAT. OFF.

American Operating Methods

are explained in a concise, practical way in OIL FIELD PRACTICE, by Dorsey Hager, petroleum geologist and engineer.

It is written for the business man, the oil field driller and operator, the geologist and the investor.

You may obtain this book containing 310 pages and 98 illustrations by mailing check for $3 to—

National Petroleum News

820 Caxton Building **Cleveland, Ohio**

Definitions of Items in Uniform General Balance Sheet of the A. P. I.

THIS is the fifth installment of definitions of items in the tentative uniform general balance sheet prepared by the American Petroleum Institute's committee on uniform methods of accounting, of which M. W. Mattison, in charge of accounting and tax work for the institute, is general chairman.

The general uniform balance sheet was published in the March 10 issue of National Petroleum News and installments of the definitions of the various items have been published in the March 24 and following issues.

The figures appearing before each item are keys to the various items in the balance sheet and were adopted by the committee to provide a method of fixing each item in its place in the general balance sheet.

This is a tentative form and is published now for the purpose of criticisms by the entire industry. The general balance sheet with possible revisions will be submitted to the institute at its next annual meeting for adoption.

7. OPERATING RESERVES

This classification shall include all accounts that are set up for the purpose of recording certain decreases of assets due to depletion, depreciation (including obsolescence), amortization, bad debts, etc., for the purpose of having in account classifications, credit balances that are deducible from the assets to which they apply.

Such reserve accounts are, in reality, divisions of the asset accounts to which they apply and, therefore, should not be shown on the liability side of the balance sheet.

Operating reserve accounts will include only credits that result from direct charges to operating expense or other profit and loss accounts.

The following sub-accounts shall be maintained:

7.0 Reserves for Depletion—Cost
7.1 Reserves for Depletion—Appreciated Values
7.2 Reserves for Depreciation
7.3 Reserves for Amortization
7.4 Reserves for Bad Debts
7.5 Other Operating Reserves.

7. OPERATING RESERVES—7.0 Reserves for Depletion—Cost

This classification shall include reserves for sustained depletion computed on the cost of oil or gas lands and leases.

The following sub-accounts shall be maintained:

7.00 Reserves for Depletion of Oil Properties
7.01 Reserves for Depletion of Gas Properties.

7.0—Reserves for Depletion (Cost)—7.00 Reserves for Depletion of Oil Properties

To this account shall be credited the amount of sustained depletion computed on the cost of oil lands or leases.

To this account shall be charged, at the time of abandonment, sale or other disposal of such oil properties, the amount previously credited.

7.0 Reserves for Depletion (Cost)—7.01 Reserves for Depletion of Gas Properties

To this account shall be credited the amount of sustained depletion computed on the cost of gas lands or leases.

To this account shall be charged, at the time of abandonment, sale or other disposal of such gas properties, the amount previously credited.

Rodney S. Durkee
Comptroller, General Petroleum Corp., Los Angeles, chairman of the Pacific group of the A. P. I. committee on uniform method of oil accounting.

7. OPERATING RESERVES—7.1 Reserves for Depletion (Appreciated Values.

This classification shall include the amount of sustained depletion computed on appreciation of oil or gas lands and leases.

The following sub-accounts shall be maintained:

7.10 Reserves for Depletion of Oil Properties—March 1, 1913, Valuation
7.11 Reserves for Depletion of Oil Properties—Discovery Valuation
7.12 Reserves for Depletion of Gas Properties—March 1, 1913, Valuation
7.13 Reserves for Depletion of Gas Properties—Discovery Valuation

7.1 Reserves for Depletion (Appreciated Values)—7.10 Reserves for Depletion of Oil Properties (March 1, 1913, Valuation)

To this account shall be credited the sustained depletion computed on the excess of March 1, 1913, valuation over cost.

To this account shall be charged, at the time of abandonment, sale or other disposal of such appreciated oil properties, the amount previously credited.

7.1 Reserves for Depletion (Appreciated Values)—7.11 Reserves for Depletion of Oil Properties (Discovery Valuation)

To this account shall be credited the sustained depletion computed on the excess of discovery valuation over costs, or, in cases of properties having March 1, 1913, valuation, on the excess of discovery valuation over March 1, 1913, valuation.

To this account shall be charged, at the time of abandonment, sale or other disposal of such appreciated oil properties the amount previously credited.

7.1 Reserves for Depletion (Appreciated Values)—7.12 Reserves for Depletion of Gas Properties (March 1, 1913, Valuation)

To this account shall be credited the sustained depletion computed on the excess of March 1, 1913, valuation over cost.

To this account shall be charged, at the time of abandonment, sale or other disposal of such appreciated gas properties, the amount previously credited.

7.1 Reserves for Depletion (Appreciated Values)—7.13 Reserves for Depletion of Gas Properties (Discovery Valuation)

To this account shall be credited the sustained depletion computed on the excess of discovery valuation over cost, or, in cases of properties having March 1, 1913, valuation, on the excess of discovery valuation over March 1, 1913, valuation.

To this account shall be charged, at the time of abandonment, sale or other disposal of such appreciated gas properties, the amount previously credited.

7. OPERATING RESERVES—7.2 Reserves for Depreciation (including Obsolescence)

This classification shall include reserves for depreciation and obsolescence of physical assets.

To the appropriate sub-accounts under

this account shall be credited sustained depreciation and obsolescence accrued during the accounting period. Such depreciation and obsolescence shall be computed on book values of physical assets.

To the appropriate sub-accounts under this account shall be charged, at the time of abandonment, sale, or other disposal of such physical assets, the amount previously credited.

The following sub-accounts shall be maintained:

7.20 to 7.29 subdivided to conform with classifications used under Fixed (Capital) Assets.

7. OPERATING RESERVES—7.3 Reserves for Amortization

This classification shall include reserves for amortization of undeveloped leases and other fixed assets.

The following sub-accounts shall be maintained:

7.30 Reserves for Amortization—Undeveloped Leases

7.31 Reserves for Amortization—Other Fixed Assets.

7.3 Reserves for Amortization—7.30 Reserves for Amortization (Undeveloped Leases)

To this account shall be credited the amounts received to extinguish the cost of undeveloped leaseholds ratably over their term.

To this account shall be charged, at the time of sale, abandonment, transfer to Account 4, Fixed (Capital) Assets, or other disposal, the amount previously credited.

7.3 Reserves for Amortization—7.31 Reserves for Amortization (Other Assets)

To this account shall be credited the amounts applicable to the current accounting period reserved to extinguish the cost of fixed assets to amortization other than undeveloped leases covered by Account 7.30.

To this account shall be charged, at the time of sale, abandonment, or other disposal of such other assets, the amount previously credited.

7. RESERVES—7.4 Reserves for Bad Debts

To this account shall be credited amounts reserved to cover estimated losses on uncollectible receivables.

To this account shall be charged receivables ascertained to be uncollectible.

7. RESERVES—7.5 Other Operating Reserves

To this account shall be credited amounts reserved to provide for extinguishment of other asset values, not provided for in Accounts 7.0 to 7.4 inclusive.

To this account shall be charged, at the time of sale or other disposal of such assets, the amount previously credited.

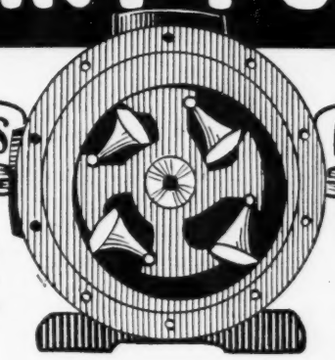
8. DEFERRED CREDITS

This classification shall include receipts which will be transferred to other accounts in subsequent accounting periods.

(Continued on next Page)

BLACKMER ROTARY PUMPS

MORE GALLONS PER DOLLAR



Dominates the field in transferring oil and gasoline.

Capacities from 3 G. P. M. to 500 G. P. M. hand or power operated.

District Offices

284 Peachtree St., Atlanta, Ga.
709 Title Bldg., Baltimore, Md.
428 Old South Bldg., Boston, Mass.
52 W. Chippewa St., Buffalo, N. Y.
608 So. Dearborn St., Chicago, Ill.
1347 Book Bldg., Detroit, Mich.
408 Austin St., Houston, Texas.
4025 Boulevard Place, Indianapolis, Ind.
1505 Commerce Bldg., Kansas City, Mo.
Stearns-Rogers Mfg. Co., Denver, Colo.
1320 Starks Bldg., Louisville, Ky.
429 Broadway, Milwaukee, Wis.
549 Plymouth Bldg., Minneapolis, Minn.
306 Wells Fargo Bldg., New Orleans, La.
71 Murray St., New York, N. Y.
904 Real Estate Trust Bldg., Philadelphia, Pa.
711 Ferguson Bldg., Pittsburgh, Pa.
1516 Pine St., St. Louis, Mo.
693 Mission St., San Francisco, Calif.
Canadian Branch: London Concrete Machinery Co. London, Ont.

BLACKMER PUMP COMPANY
GRAND RAPIDS (FORMERLY PETOSKEY) MICH.

MARS SWIVEL JOINT

Don't waste time and money resetting coupling. MARS protects—takes the short bend in any direction, up, down, or sideways. No leaky or frayed hose. Speeds up service. Use on every pump.

After a third try and test, one Oil Company places order for 1700 MARS SWIVEL HOSE JOINTS.

Get your hose in good shape for 1926 business. Price: 1¼" -$6.35. 1"-$5.00. Write for liberal quantity discount.

NOTICE: Get this. One-gallon housed Farm Yard Pump—Write us.

MARS CO.
Aurora, Ill.

The following sub-accounts shall be maintained:

8.0 Premiums on Bonds and Notes Issued

8.1 Other Deferred Credits.

8. DEFERRED CREDITS—8.0 Premiums on Bonds and Notes Issued

To this account shall be credited the excess of the cash received at the time of original issue of bonds or notes over the face value and accrued interest included in sale price.

The accrued interest so received shall be credited to Account 6.30, Accrued Interest Payable.

To this account shall be charged the proportion of such premium applicable to the current accounting period.

When bonds or notes issued at a premium are retired prior to maturity, the unamortized premium shall be charged to this account.

8. DEFERRED CREDITS—8.1 Other Deferred Credits

To this account shall be credited all deferred credits other than premiums on bonds or notes.

To this account shall be charged the proportion of deferred credits applicable to the current accounting period.

9. LONG TERM INDEBTEDNESS

This classification shall include accounts maintained to record long term indebtedness.

The following sub-accounts shall be maintained:

9.0 Bonds Payable

9.1 Loan Notes Payable

9.2 Purchase Obligations.

9. LONG TERM INDEBTEDNESS —9.0 Bonds Payable

To this account shall be credited the face value of bonds issued or assumed by the accounting company. Discounts on bonds issued shall be charged to appropriate sub-accounts under Account 5.0, Deferred Charges, and premiums on bonds issued shall be credited to Account 8.0, Premiums on Bonds and Notes Issued.

To this account shall be charged the face value of bonds retired.

9. LONG TERM INDEBTEDNESS 9.1 Loan Notes Payable

To this account shall be credited the principal amount of loan notes payable, issued or assumed by the accounting company (payable later than one year from date of issuance or assumption)

Discounts on such loan notes shall be charged to Account 5.1, Discount on Other Securities, and premiums on such loan notes shall be credited to Account 8.0, Premiums on Bonds and Notes Issued.

To this account shall be charged the principal amount of loan notes retired.

9. LONG TERM INDEBTEDNESS —9.2 Purchase Obligations

To this account shall be credited the principal amount of purchase money obligations issued or assumed by the accounting company.

To this account shall be charged the principal amount of purchase money obligations retired.

Profit Seen in Standard Accounting Methods

"Standardization of accounting methods has as many possibilities for profit as standardization of equipment and methods in other departments of the oil business," said Rodney S. Durkee, comptroller, General Petroleum Corp., Los Angeles, and chairman of the Pacific group of the A.P.I. committee on uniform methods of oil accounting.

"Uniformity in accounting procedure will benefit the investing public and the banker, as well as the stockholders and executives of the oil companies. It will give the investing public and the banker a sound basis for the analyzing and comparing of statements of oil companies, and it will give the stockholders correct and comparative pictures of the results of operations.

"The adoption of the American Petroleum Institute accounting standards will be only the first of the benefits to be derived. These standards will be continually modified and revised as required by changed conditions and improved accounting methods.

"The annual meetings of the accounting section of the institute should become a potent factor in the education of those specializing in oil accounting."

COUPON BOOKS

of Every Description

ACCURACY GUARANTEED

Consider the trouble that may be caused by inaccurate coupon books, then place your order with

Allison Coupon Company

Indianapolis, Indiana

Industrial Catalogues

Continental Supply Co. of St. Louis is sending out to the trade five additions to its general catalog, in the usual form of pamphlets to be inserted in their proper places in the binder. One of these pamphlets, containing 38 pages, lists refinery and gasoline plant equipment, direct connected gas compressors and pipe line supplies. Electrical machinery and scales are catalogued in another pamphlet, dated Feb. 15, and containing 25 pages. This gives an interesting listing of electrical equipment designed for use in the oil fields.

Another new supplement, consisting of 22 pages, deals with boilers and steam engines, with pictures and full descriptions of these articles, with accessories for each. Gas and oil internal combustion engines and Diesel engines using crude oil are covered in another of the recent catalog additions. The fifth of these supplements covers iron and brass valves and cocks and contains 66 pages.

* * *

International Nickel Co., 67 Wall St., New York City.—Bulletin No. 3 in its series of technical articles on nickel steel, has been issued. This bulletin is a discussion of the heat treatment and applications of nickel and nickel-chromium steels. Bulletin No. 1 included the Society of Automotive Engineers standard specifications for steels, and Bulletin No. 2 was devoted to the physical and mechanical properties of nickel steels.

Binders to facilitate filing of these bulletins are furnished by the company upon request.

* * *

C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.—A booklet entitled "Do You Use Your Plant Newspaper," in which a recording instrument is likened to a newspaper, has been published on recording instruments in general. Because every industrial plant has one best temperature or pressure or other vital condition, the recorder shows what his condition is or was at any time on any particular apparatus. Copies of this booklet can be obtained free by writing the company.

* * *

Hills-McCanna Co., Chicago.—A chemical plunger pump which has just been placed on the market by this company, is described and illustrated in a leaflet. The pump has been designed to meet a demand for a reliable means of delivering liquids against pressure in measured quantities over a period. It is made in cast iron and steel for handling various water treatments and in corrosion resisting non-ferrous alloys where the service demands it.

Technical Paper 368, Paraffin Wax and Its Properties; Methods of Testing Wax and of Analyzing Oil-wax Mixtures, by L. D. Wyant and L. G. Marsh has been issued by the Bureau of Mines, Department of Commerce, Washington. A charge of 10 cents per copy is made.

State Executives Club Has Successful Meet

GRAND RAPIDS, MICH., April 16.—The first meeting of the State Executives Club, which is composed of officers of all the state oil jobbers associations, was held during the National Petroleum Marketers Association convention on April 6, 7 and 8, at the Congress Hotel, Chicago.

Almost every state association had either its president or secretary or both, in attendance at this meeting, according to James A. Gilmore, who is president of the club, and secretary of the Michigan Independent Oil Men's Association, with headquarters here.

Principal speakers and the subjects upon which they spoke were: Paul E. Hadlick, secretary of the Minnesota Petroleum Association, Minneapolis, whose subject was "How To Get and Hold Members"; Charles M. Sutherland, secretary of the Nebraska Independent Oil Men's Association, Lincoln, who delivered two addresses, one of which was "How Legislation Has Been and Can Be Accomplished" and the other "What Cooperation Can We Expect From the Refiners"; George S. Allee, secretary of the Missouri Oil Men's Association, on "Membership Dues—Basis of Assessment and Collection"; W. C. Hughes, secretary of the Ohio Petroleum Marketers Association, Columbus, on "Gasoline Tax and Inspection Laws—Shall We Endeavor to Knock Them Out or Make Them Uniform"; and Mr. Gilmore, whose subject was "How To Get Out Attendance at Meetings and How To Interest Your Members in Them."

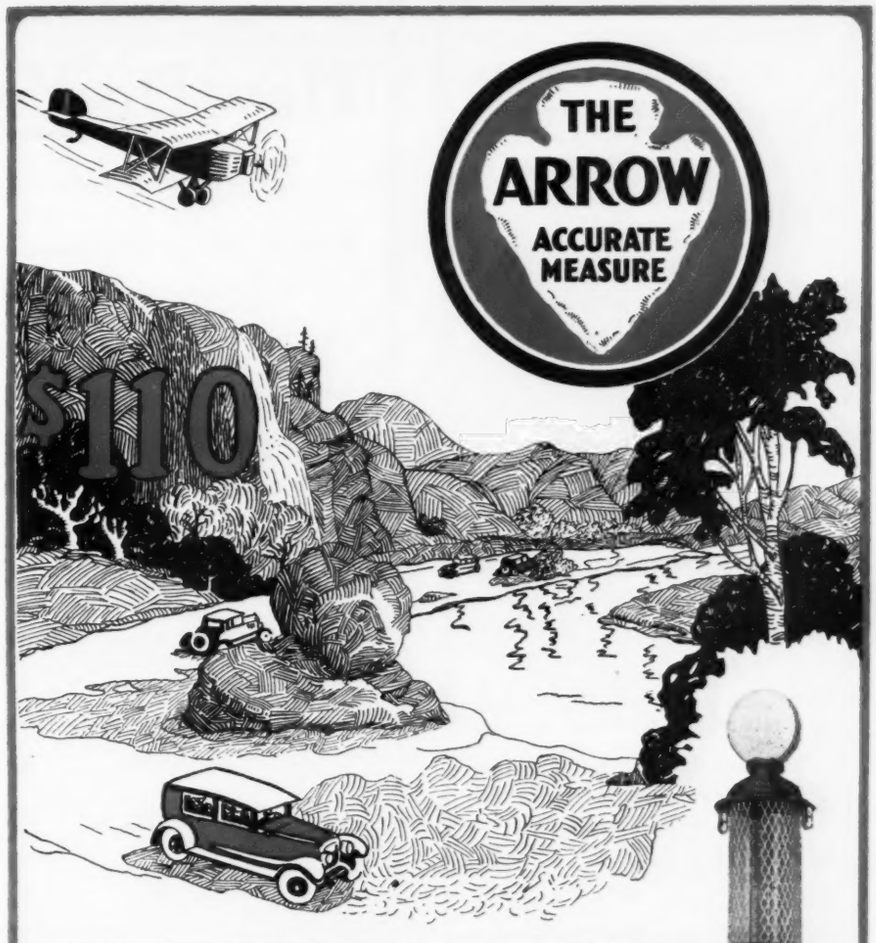
Other subjects of interest were discussed informally and the regularly assigned subjects were discussed in open forum meetings. It was unanimously decided by those attending the meeting that such meetings will result in greater efficiency in the administration of the state associations.

During Mr. Sutherland's address, Howard Bennette, managing director of the Western Petroleum Refiners Association, Tulsa, dropped in on the meeting, and the club members are still trying to determine whether that was by accident or design on the part of Mr. Sutherland, in view of subject on which he spoke.

The next three-day meeting of the club will again he held in Chicago, sometime during August. At least a part of the sessions will be held in connection with the Northwestern University's summer courses of instructions to association secretaries.

ONLEY, VA.—Ned Savage Keller marketer here reports that some oil companies are giving away tickets with gasoline and oil sales, which are redeemable for silverware, and other articles.

OIL CITY, PA., April 16.—Edward S Laughlin, well known oil producer and former postmaster of Oil City, died April 8. He was 76 years old. His widow survives.



THE MANY THOUSANDS who purchase gasoline demand Fast, Honest and Safe Service, and they want to see what they pay for. ARROW PUMPS fulfill these demands in every way.

ARROW PUMPS are easy to buy and easy to install. Made from the best of materials, finely finished and constructed and most attractive in appearance, they command attention and increase trade.

ARROW PUMPS are sold direct and at a price that is remarkably low, considering all that is furnished with these high grade equipments.

INSTALLING: No special skill is required to install an outfit, and many of our customers have made their own installations. Full directions are furnished.

ARROW PUMPS have pleased and satisfied many throughout the country and we know that we can please you with a High Grade Pump at the right price.

Wichita Pump & Equipment Co.

P. O. Box 905

1565 Mosley Ave. Wichita, Kansas

Help Your Salesmen

to acquire a working technical knowledge of the selection, application and use of lubricants, by ordering for each one a copy of the PRACTICE OF LUBRICATION by T. C. Thomsen.

It discusses the origin, nature and testing of lubricants and every phase of lubrication engineering.

It is $6 a copy. Make your check payable to—

National Petroleum News

825 Caxton Building Cleveland, Ohio

THE GRANBERG PETROLEUM METER

A SIMPLE and RELIABLE instrument of UNIQUE construction

THE GRANBERG METER

is designed particularly for use on Tank Wagons and Loading Racks and for general service in distributing plants.

This meter will handle all refined petroleum products and will insure accurate records of receipts and deliveries.

It is particularly adapted to installations operating on low gravity heads.

Catalog upon Request

ASSOCIATED SUPPLY COMPANY
METER DEPARTMENT
79 New Montgomery St., San Francisco, Calif.

How Do You Find Oil Prices?

If some one asked you—

1—Tankwagon price of gasoline in your territory June 21, 1925

2—Price of crude Feb. 16, 1925

3—Refinery market on gasoline or kerosene Sept. 3, 1925

Could you answer in 10 seconds?

You could if you had the 1925 OIL PRICE HANDBOOK on your desk. Here you have the Crude, Refinery, and Tankwagon prices for 1925—a whole year's oil markets in one handy volume—indexed so you can get any back price at a glance.

You can never tell—maybe tomorrow, you'll find it highly important to refer to back prices "in a hurry" . . . and find the very issues of N. P. N. with those prices missing . . .

So order your 1925 OIL PRICE HANDBOOK *today*—cloth bound, marginal index, complete for 1925—Price $5.

NATIONAL PETROLEUM NEWS

809 Caxton Bldg. Cleveland, Ohio

More Than A Truck Tank

It is Certified Oil Transportation and It Carries ALL the Oil

When you buy Good Trucks, equip them with Real Tanks. A Brown Certified Tank fills the bill. More Exact Fit, Long Life, No Repair Bill, Good Appearance

BROWN SHEET IRON & STEEL CO. **ST. PAUL, MINN.**

— — — — — — *Tear out this page and mail it today* — — — — — —

We are interested in your tanks. Send your catalog and prices.

Make of Truck ..... Year ..... We operate ..... (number) Tank Trucks.

Other equipment on which you may send prices .....

Name ..... Address .....

HERE & THERE

National Petroleum News

E. A. Durham, president of the Wiser Oil Co., which, with the Petroleum Exploration Co., and Amity Gasoline Co., are commonly referred to as the Trico companies, with headquarters at Sistersville, W. Va., accompanied by Mrs. Durham, sailed on April 10 on the S. S. Leviathan for a business trip to Paris, according to David D. Sutton manager.

Mr. and Mrs. Durham will return on the S. S. Berengaria about May 10.

* * *

R. P. Fleckenstein, who formerly represented the Fleckenstein Visible Gasometer Co., Grand Rapids, Mich., in eastern Michigan, is now representing the Marland Refining Co., Ponca City, Okla., in Michigan territory, succeeding Earle B. Barker, who has resigned.

* * *

W. A. Olen, president and general manager of the Four Wheel Drive Auto Co., Clintonville, Wis., is away on a business trip through the East.

R. H. Schmidt, assistant general manager, is on an extended trip through the southeastern states.

* * *

George R. Miller, formerly district superintendent at Greensburg, Pa., for the Sinclair Refining Co., Chicago, has been promoted to special representative. A. T. Stewart, Jr. succeeds Mr. Miller as district superintendent.

* * *

J. F. Hull, salesman in the Logan, W. Va. field for the Standard Oil Co. of New Jersey, New York, attended a salesmen's meeting in the Charleston, W. Va. offices of the company on April 13.

* * *

Harvey H. Boarts, president of the Boarts Gasoline & Oil Co., Greensburg, Pa., has returned from Chicago where he attended the recent N. P. M. A. convention.

* * *

Dave M. John, Jr., salesman in Oregon for the Tide Water Oil Sales Corp., New York, has moved his headquarters from Corvallis, Ore. to Salem, Ore.

* * *

F. N. Brees, assistant manager in the Spokane, Wash., district for The Texas Co., Houston, Tex., visited eastern Montana points recently.

* * *

Ray V. Hennen, chief geologist of the Transcontinental Oil Co., Tulsa, spent a few days with his family at Morgantown, W. Va. recently.

Levi Smith, president of the Big Lake Oil Co., Big Lake, Tex., returned to Big Lake recently following a trip to Pittsburgh, Pa. and other eastern points.

J. H. Cumbow

Secretary and Treasurer of Cumbow-Lanning Oil Co., Inc., oil jobber of Sioux Falls, S. D., who was recently re-elected for a third consecutive term as president of the South Dakota Independent Oil Jobbers Association, Sioux Falls.

* * *

Thomas D. Hudepohl, who has been covering the corners of five states for the past 37 years as salesman for the Waverly Oil Works Co. of Pittsburgh, Pa., has been assigned to his home town territory at Tarentum, Pa.

* * *

A. H. Donaldson, formerly chemist for the H. K. Stahl Oil & Grease Co., St. Paul, has installed a modern oil testing laboratory and is now a consulting petroleum technologist in Minneapolis.

Junior Here and There

Twins, a boy and girl, recently arrived at the home of Mr. and Mrs. W. R. Davies, Washington, Pa. Mr. Davies is manager at Washington of service station No. 1 of the Ross Independent Oil Co., and states that the boy will report for duty this summer.

J. R. Meredith, general superintendent of the Walker Oil Co., Parkersburg, W. Va., is back on his old job on the company's property in Kanawha county, after an absence of about 18 months.

During his absence, Mr. Meredith and W. W. Walker, president of the company were engaged in the automobile business at Huntington, W. Va.

* * *

Byron Bowers, manager of the Allentown, Pa. station of the Crew-Levick Co., Philadelphia, has been elected president of the T. P. A. of Allentown.

Howard F. Boone, manager of the Lansdale station of the company has just returned from Florida and reports the gasoline and oil business "going some" down there.

* * *

Edwin Floyd, salesman in western New York and Pennsylvania, for the Emery Mfg. Co., Bradford, Pa., whose headquarters are at Elmira, N. Y., has been laid up eight weeks with the grip but is back on the job covering his territory. He finds business good.

* * *

C. H. Taylor, manager of the Penn Oil Co., Pennsboro, W. Va., will visit Montreal, Que., in April, as a delegate of the Kiwanis club of Pennsboro. He will attend the Kiwanis international convention.

* * *

Dr. I. C. White, state geologist of West Virginia with headquarters at Morgantown, and Mrs. White have returned from Hawaii and California where they spent the winter.

* * *

William V. Hughes, president of the Hughes Oil Co., Glendive, Mont., visited various points in Montana and North Dakota recently, inspecting company property.

* * *

Robert Axt, formerly general manager of the Municipal Filling Stations, of Newark, N. J., is now secretary and treasurer of the Sure company.

* * *

L. F. Gallitly, of the Wichita, Kan., offices of the Standard Oil Co. of Indiana, is the new salesman for Marion county for the Standard.

* * *

J. J. Jones, owner of the Rodeo Garage Co., Rodeo, N. M., accompanied by his family, motored to Clifton and Morenci, N. M., recently.

* * *

R. T. Zook, president and general manager of the Sloan & Zook Co., Bradford, Pa., has returned from a vacation at Havana.

FUEL OIL — GAS OIL

Burial Private—
PLEASE OMIT FLOWERS

He wasn't exactly the manager's idea of a finished fielder, but he was the best reserve player available at the time. And when the regular center fielder tripped one day and was cut by the bottle that broke in his hip pocket, the rookie was given the job. A tied score, two men out in the ninth, the winning run on third and—well, the picture tells its own details. The game was lost because the team lacked *dependable reserve power.* All of which demonstrates again that regardless of who supplies your oils now, it would be sound business to have connections with Spencer too, so that in times of emergency you will have *two* dependable sources to fall back upon.

Our nearest office is ready to serve you. Write, phone or call.

"Conscientious Oil Marketing, Guided by Years of Experience"

SPENCER PETROLEUM CO.

All Petroleum Products

CHICAGO
1331-1333 Peoples Gas Bldg.
Harrison 9630-1-2-3-4

STABILITY SPENCER SERVICE OILS SATISFACTION

KANSAS CITY
700 Orear-Leslie Bldg.
Harrison 6180-81
Long Distance 65

WICHITA FALLS
204 City Nat'l Bk. Bldg.
Phone 3480

TULSA
1039 Kennedy Bldg.
7857
ong Distance 37

DETROIT
743 Book Bldg.
Cadillac 8864

KEROSENE — GASOLINE

Can You Always Put Your Hand On a Good Reference Book?

You can, if you own a set of the AMERICAN PETROLEUM INDUSTRY by Bacon and Hamor.

But if you are trying to get along without it, you are doing without two volumes of information carefully planned and arranged in such a way as to make them valuable reference books, of interest to the engineer in practice as well as to the research worker and student. Both volumes are illustrated throughout and cover the chemistry, geology, technology, history and economics of the subject thoroly.

The set sells for $12. Send us your order and make your check payable to—

National Petroleum News
834 Caxton Building — Cleveland, Ohio

Oil Patents Issued Recently

Production

Treating Apparatus for Crude Oil.—Harry L. Edwards, Houston, Tex., assignor of one-half to G. H. L. Kent, Houston; and of one-sixth to Ray Richmond, Corsicana, Tex. Filed Mar. 29, 1924. No. 1,578,273.

Pumping Jack.—John A. Birtciel, Tulsa, Okla., assignor of one-half to Tidal Oil Co. Filed Dec. 1, 1924. No. 1,578,387.

Make-Up Post for Rotary-Drilling Apparatus.—Edgar E. Greve, Bellevue, Pa. Filed Feb. 28, 1923. No. 1,578,428.

Spring Rod for Underreamers.—Fred Swan, Marietta, Ohio. Filed Oct. 20, 1924. No. 1,578,482.

Apparatus for Indicating the Pressure of the Drill Bit or Casing on the Formation.—Holmes H. Henshaw, Hollywood, and William H. Taylor, Pomona, Calif. Filed Feb. 4, 1924. No. 1,578,518.

Method of Making Deep-Well Auger Stems.—Gustavus A. Montgomery, Titusville, Pa., assignor to Titusville Forge Co., Titusville. Filed Aug. 8, 1924. No. 1,578,543.

Rotary Underreamer.—John M. Bateman, Long Beach, Cal. Filed Apr. 4, 1923. No. 1,578,574.

Rotary Well Drill.—John A. Zublin, Los Angeles, Cal. Filed Dec. 1, 1922. No. 1,578,623.

Crown-Block Bolt.—Wilbert E. Gordon, Los Angeles, Cal., assignor to Emsco Tool Co. Filed Apr. 14, 1924. No. 1,578,656.

Polish-Rod Clamp.—Clyde S. Wright, Toledo, Ohio, assignor to The National Supply Co., Toledo, Ohio. Filed Oct. 7, 1925. No. 1,578,696.

Oil-Well Pump.—Earle Derby, San Francisco, Cal. Filed Sept. 8, 1925. No. 1,578,720.

Pipe-Suspending Device and Blow-Out Preventer for Oil-Well Casings.—Frank Redick, Parkerton, Wyo. Filed Oct. 3, 1925. No. 1,579,144.

Rotary Drilling Bit.—John Rutherford and Henry P. Scanlon, Long Beach, Cal. Filed Sept. 26, 1922. No. 1,577,875.

Method and Apparatus for Separating Gas and Oil.—David G. Lorraine, Los Angeles, Cal. Filed Sept. 11, 1923. No. 1,577,917.

Combined Section Coupling and Standing-Valve-Attaching Means for Oil-Well Casings.—Jessie J. Butler, Hominy, Okla. Filed Apr. 22, 1924. No. 1,577,950.

Pumping Mechanism.—Ira B. Humphreys, Denver, Colo. Filed Feb. 24, 1923. No. 1,577,971.

Refining

Apparatus for Testing Oils.—Alfred Henriksen, Nicholas A. Stephens, and Valentine Zbyshevski, Ponca City, Okla. Filed Feb. 26, 1924. No. 1,578,730.

Pyrogenesis of Petroleum.—Edgar Milton Clark, N. Y., assignor to Standard Development Co. Filed July 3, 1919. No. 1,578,802.

Method of Making Aluminum Chloride.—Almer M. McAfee, Port Arthur, Tex., assignor to Gulf Refg. Co., Pittsburgh, Pa. Filed Mar. 1, 1923. No. 1,578,052.

Process of Removing Aluminum Chloride Residues from Stills.—Almer McDuffie McAfee, Port Arthur, Tex., assignor to Gulf Refg. Co., Pittsburgh, Pa. Filed Dec. 13, 1923. No. 1,578,053.

Miscellaneous

Method and Apparatus for Separating or Removing a Gas from a Mixture of Gases.—Ernest B. Miller, Baltimore, Md., assignor to The Silica Gel Corp., Baltimore, Md. Filed June 15, 1922. No. 1,577,534.

Process of Regulating Internal-Combustion Engines.—Andre C. Attendu, Montreal, Quebec, Canada, assignor to Attendu Engines Ltd., Montreal, Canada. Filed Dec. 27, 1921. No. 1,577,551.

Fuel.—Thomas Midgley, Jr., Dayton, Ohio, assignor to General Motors Corp., Detroit, Mich. Filed Feb. 28, 1920. No. 1,578,201.

Process for the Removal of Naphthalene and Analogous Hydrocarbons from Fuel Gases.—Frederick W. Sperr, Jr., Pittsburgh, Pa., assignor to The Koppers Co., Pittsburgh. Filed Jan. 26, 1925. No. 1,578,687.

New Oil Station Construction

Sherburn, Minn.—C. W. Thompson, S. P. Anderson and Joseph Dougherty leased property for bulk and filling station.

* * *

Fulton, Mo.—Walter Johnson, formerly manager at Auxvasse for Illinois Oil Co., will build filling station here.

* * *

Algona, Ia.—William Pestotnik and Matt Selzer building filling station, to handle Deep Rock Oil Co.'s products.

* * *

Grand Island, Neb.—Dean Sharrar, district manager of Sinclair Refining Co. here, purchased site for filling station.

* * *

Holdrege, Neb.—House Havard and Roy Magill erecting filling station and Sinclair products will be handled.

* * *

Gage, Okla.—C. C. Barnes erecting filling station, which will handle Champlin Refining Co.'s products.

* * *

Mankato, Minn.—H. F. Zastrow and J. G. Gross building filling station, handling Texaco products.

* * *

Eldora, Ia.—Filling station being built here which will be leased by Standard Oil Co. of Indiana.

* * *

Tiffin, Ia.—P. R. Ford of Cedar Rapids, Ia., purchased property here for filling station.

* * *

Sterling, Neb.—D. R. Weins, Home Oil Co., will build filling station at Vesta, Neb.

* * *

Dunbar, Neb.—Michael Oil Co., Omaha, purchased property for bulk station.

* * *

Winona, Minn.—Standard Oil Co. of Indiana seeks permit for filling station.

* * *

Bayfield, Wis.—Northwestern Oil Co. seeks permit to build filling station.

* * *

Wheeling, W. Va.—Ohio Valley Oil & Gas Co. building filling station.

* * *

Russellville, Ky.—Gulf Refining Co. bought property for bulk plant.

* * *

Beatrice, Neb.—B. D. Hotchkiss bought site for filling station.

* * *

Boise, Ida.—Shell Co. of California building filling station here.

* * *

Kingsville, Tex.—Weller Motor Co. building filling station.

* * *

Sigourney, Ia.—Lloyd Page to erect filling station.

Black field shows territory that is still open.

for the Right Men

A thriving company wants capable men to represent it in new territory it seeks to open.

They must be men who want a *business of their own.* We want manufacturer's representatives to establish distribution among independent jobbers—on a liberal commission basis. With only moderate sales effort, we have built up distribution for Brown's-Oyl in the eight states shown in white. Now—you have your big opportunity. You get the benefit of a special plan that has proved what it will do to make a profit—build business—for the right men.

BUILD YOUR OWN BUSINESS

It isn't a peddling proposition we're proposing. When you get the backing of Brown prestige and reputation, products widely known, co-operation, price protection and the territory you want—you lay the foundation for a business exclusively yours—to make bigger year by year. We show you how—but go further than that—we HELP YOU DO IT.

SUCCESSFUL IN 8 STATES

You're not gambling with an uncertainty when you take hold of this proposition. It's proved out in 8 states now. Oil men who know their stuff and will DO THEIR STUFF invariably make good. You never hear of failure in connection with the Brown Petroleum Co. products. If you think you are the right man—

ANSWER THESE QUESTIONS

What territory do you want? How long have you been associated with the oil business? What have you handled before? What is your age? Have you a car? Could you come to St. Louis for personal conference? Will you read and acknowledge what we send you? Tell us about yourself—for this open territory is *only for the right men.*

R. J. Brown Petroleum Co.

1416 Wittenburg Ave. St. Louis, Mo.

Every Filling Station

Should Have a Genuine Murdock Hydrant

Self Closing Hydrant

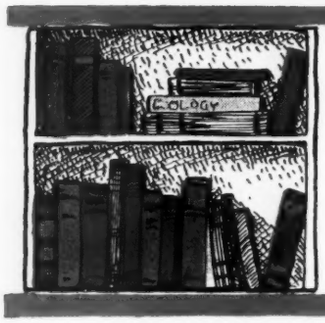
Because it will not freeze. It delivers water regardless of climate. At all times a convenience to the customer, preventing running in and out of stations and to yourself because it is not necessary to shut it off at night. Some of the largest distributors are using them.

ALSO DRINKING FOUNTAINS

Write for Catalogues

THE MURDOCK MFG. & SUPPLY CO.
CINCINNATI, OHIO

Makers of Outdoor Water Devices Since 1853



Oil Man's Bookshelf

THE appetite for more knowledge comes with feeding the brain. We rise from a good book with an appetite for more.

The biggest men in the country are great readers. They read and register that which helps them.

The OIL MAN'S BOOKSHELF will help you select books on oil that you can read with the greatest profit.

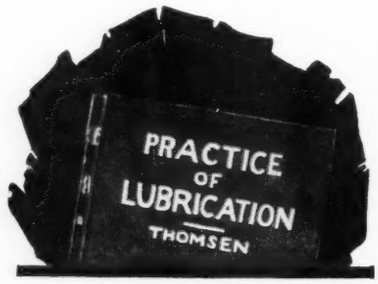
DAY'S HANDBOOK of Petroleum

In this Handbook you consult with 16 of this country's best oil experts on your business. The work is in two volumes and covers the following subjects—each by an oil expert:

Vol. I—Description of every oil field known; How to survey oil lands; Drilling methods; Petroleum and natural gas statistics; Transportation problems; Complete analysis of petroleum to hydrocarbons; Testing methods; Vapors in natural gas, etc.; Preparation, testing, uses of asphalt; Oil shale. 964 pages.

Vol. II—Refining, plant layout for various oils, specifications for tanks, stills, condensers, agitators, filter presses, etc., refinery operation, fire prevention; Cracking processes; Use of fuel oil, oil burner installations; Internal combustion engines; Lubrication; Oil pipe standards and uses; Tables. 1006 pages.

A very valuable book for reference, because it deals with every aspect of petroleum. The 2 volumes contain 1970 pages, $15, or you can order one volume at $8.



How to select, how to apply, and how to use lubricants is thoroly discussed in "Practice of Lubrication," by T. C. Thomsen, consulting engineer.

The subject of lubrication is so intimately connected with the mechanical and operating conditions of engines or machinery; this book presents for each type of engine and class of machinery, the "technical background" necessary to determine the character of the oils required to give the best service.

It points out the conditions under which lubricants have to work for particular types of machinery and the influences to which they are subjected during use.

"Practice of Lubrication" is a thorough and exhaustive treatment of every phase of lubrication.

610 pages, 227 illustrations — $6.00.

GASOLINE and OTHER MOTOR FUELS

Practically every process of making gasoline and other important motor fuels is described in "Gasoline and Other Motor Fuels" by Carleton Ellis and J. V. Meigs, Consulting Chemists.

Here's the Table of Contents:

Mixed Fuels; Testing of Motor Fuels; Gasoline Refinery Practice; Refining Methods; Sulphur Removal, Chemical Treatment, Distillation; Forwood's Processes; Distillation Under Pressure; Cracking in Stills Under Pressure; Burton Process; Coast's Processes; Cracking Heavy Oils in Liquid State; Tube and Retort Cracking in Vapor Phase; Hall's Processes and Methods; Rittman Process; Processes Using Steam; Cracking in Presence of Hydrogen, Hydrocarbon and Other Gases; Chemical Methods of Cracking Oils; Cracking and Distilling by Means of Fused Baths and Indirect Heating Means; Cracking with Aid of Internal Heat; Cracking by Electrical Methods; Condensation of Hydrocarbons from Gases; Benzol; Use as Motor Fuel and Manufacture; Alcohol as Motor Fuel; Shale as Source of Motor Fuel; Pyrogenetic Treatment of Asphalt.

728 pages — 206 illustrations — $10.

Cut and Mail

National Petroleum News,
845 Caxton Bldg., Cleveland, Ohio.

I want the books checked below. Enclosed is check or money order for $_____

- ☐ *Day's Handbook of Petroleum.*
- ☐ *Practice of Lubrication* by Thomsen.
- ☐ *Gasoline and Other Motor Fuels* By Ellis and Meigs.

NAME _____

Address _____

_____

_____

ON THE LAZY BENCH

National Petroleum News

We've seen the industry insulted before, and in better English than this.

(From a newspaper clipping sent The Lazy Bench Editor. Name of newspaper not given.)

Get Rich Quick

Put in a Drive-in get-rich-quick, why be poor when drive-ins are thick. If you want to get rich as easy as a top, just put in a drive-in in the town of Opp. There is only 39 in the vacinity of this place; why don't you come on and get in the race? There is no money-making line like selling gasoline, and the work is so light you feel like "sixteen." All of one notion and a drive-in station and money is a-coming without aggrevation. Get on the highway, great is the traffic early and late; rush in a drive-in and throw out your bait. The rest is as easy as can be and you'll soon handle big money just like me. If you haven't a part of the money to start, the wholesaler is smart and he's got a big heart. He'll buy you a lot right on the spot just to see you placed hot in the race. A load he'll sell you just as quick and take for his pay a post-dated check. By the time he's back you'll have a peck, you can pay him in full and have money left with which to start a bank all for yourself. Of course you don't know just how it will end, but you cannot lose great for nothing you had with which to begin. Whoever it is to lose it all, let it be the wholesale man first to fall. He ought to have a bit better sense, and not sit straddle of a round rail fence.—Anonymous.

His Interest

Three Scotchmen, McDougal, McFerson and McHenry, were chums in the trenches.

One evening a shell burst over the trench where they were stationed and blew McHenry's head off.

McDougal turned to McFerson and remarked:

"Lord Almichty, McHenry's lost his head!"

McFerson in great excitement asked: "What are ye saying—McHenry lost his head. Where did it go to?"

"What difference does it make? It's gane," answered McDougal philosophically.

"What difference does it make?" retorted McDougal. "Mebbe none tae ye, but he has me pipe in his mouth."

—Magnolia Oil News

Rules for Oil Country Hotel

Board, a dollar and a half a foot with fuel and water furnished.

Drillers taken by the week and tool dressers taken by the neck.

If you want anything in the night, wring the towel.

Guests on retiring will please remove their big hole shoes.

Guests wishing to do any driving must bring in hatchet and nails from the rig.

Guests wishing to be called, kid the cook about her pancakes. She'll call you.

If your room is too hot, open the window and see the fire escape.

If you want to write, hunt up the janitor. He's stationary.

You don't need to register. We'll know you've been here.

If you can't sleep, put your bucket under your head and imagine you are on tour.

—Bridgeport Driller

Fine Triplets

An old soldier who had served 21 years was discharged at Portsmouth and demanded half-fare tickets for his three youngest.

"How old are they?" asked the booking clerk suspiciously.

Eleven years all ave them. They're triplets."

"Fine youngsters," said the clerk. "Where were they born?"

"Pathrick was born in Cairo, Bridget was born in Bombay, an' Michael was born in Madras."

—Magnolia Oil News

Restoration

Traffic Cop halting a speeding motorist: "Say, what's the idea of paying no attention when I whistle for you to stop?"

The Speedy One: "I'm sorry, sir, but I am deaf."

Traffic Cop: "Well, we'll see that you get your hearing in the morning."

—Magnolia Oil News

Polished

"Mrs. Sinnick is very polished, isn't she?"

"Oh, very. Everything she says throws a reflection on someone."

"I just blew myself in to a new dress."

"How do you usually put them on?"

"Why can't you clean a suit with two pairs of pants?"

"You gotta use carbona."

PETROLEUM
and its Products

WRITE OR WIRE
FOR QUOTATIONS

Marietta, Ohio Refinery
operated on Pennsylvania Crude

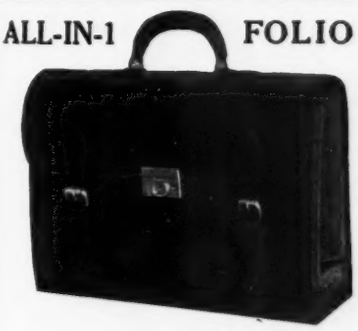
Findlay, Ohio Refinery
operated on Ohio Crude

Coffeyville, Kansas Refinery
operated on Midcontinent Crude

The
NATIONAL REFINING Co.
National Headquarters
NATIONAL BLDG.
CLEVELAND OHIO

3 MODERN REFINERIES
COFFEYVILLE, KAN.-FINDLAY, O.
MARIETTA, O.

ALL-IN-1 FOLIO



Net
$21.60

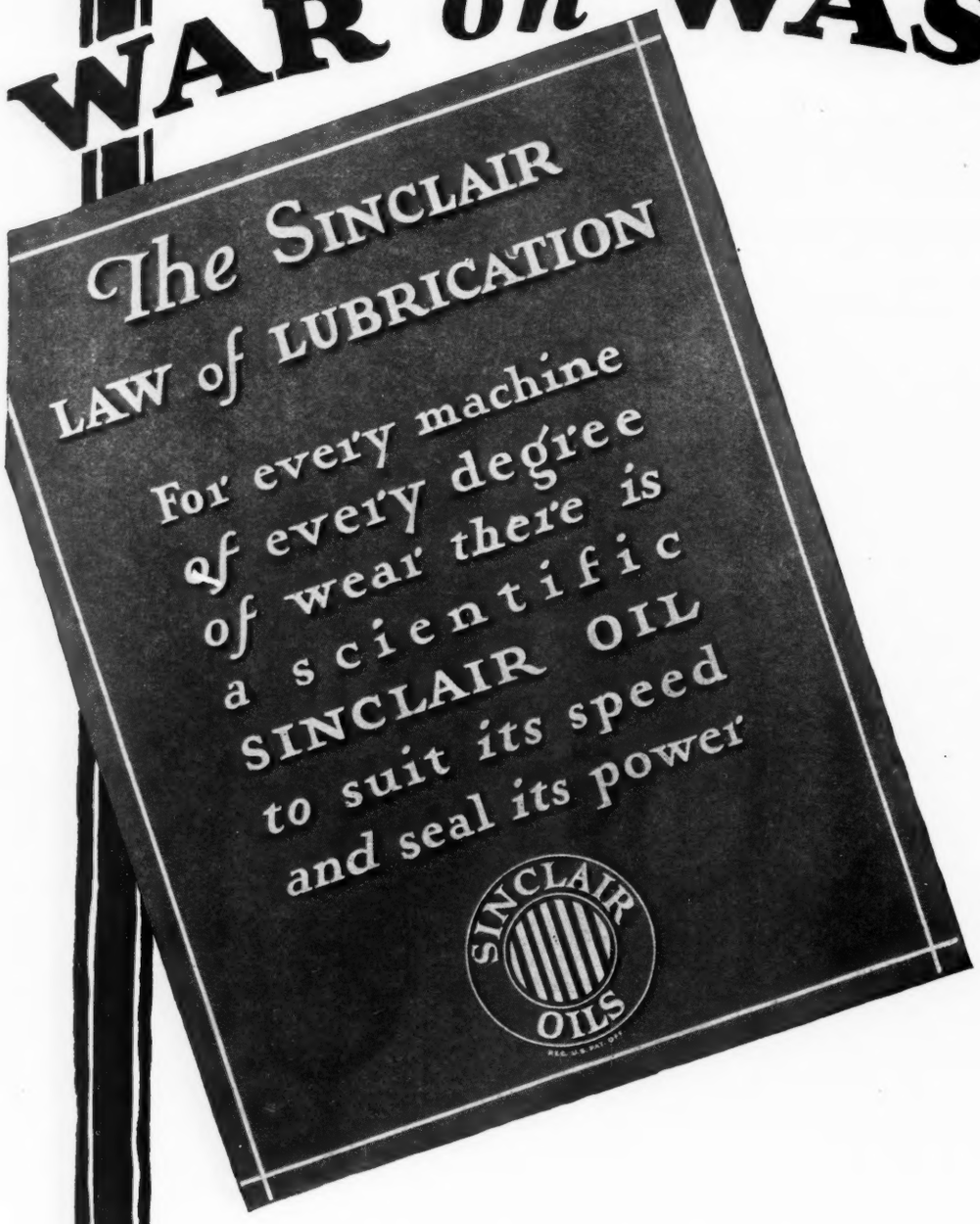
Closed, 301 is a handsome Portfolio of selected, 5 oz., black cowhide. Open however, it is an efficient, attractive Display Case, containing 18 four ounce cut-bottom bottles with metal capped corks, and 6 one ounce squat grease jars. There are no trays to lift out, no metal clips to break the bottles. The flaps are lined with washable Keratol, and the samples backed against red plush. There is also an ample pocket for order book and literature. Satisfaction is guaranteed. Your name embossed in gold *free*.

Other Styles in our FREE Catalog

L-U-C-E

Builders of Sales Luggage
614 Delaware KANSAS CITY, MO.

WAR on WASTE!



THE motorist, in buying oil, is entitled to correct lubrication for his engine—and it is the dealer's responsibility to see that he gets it. Sinclair feels that responsibility—and therefore manufactures Opaline Motor Oil to sell according to the Sinclair Law of Lubrication—a different grade of Opaline Motor Oil "for every degree of wear" of the engine.

This means correct lubrication and economical transportation. It is the motorist's protection against *Waste of Power* and wearing of parts. This is the Sinclair dealer's method of making more satisfied customers.

SINCLAIR REFINING COMPANY
45 Nassau Street, New York
Atlanta Detroit Kansas City Chicago Houston Omaha

SINCLAIR OPALINE MOTOR OIL
REG. U. S. PAT. OFF.

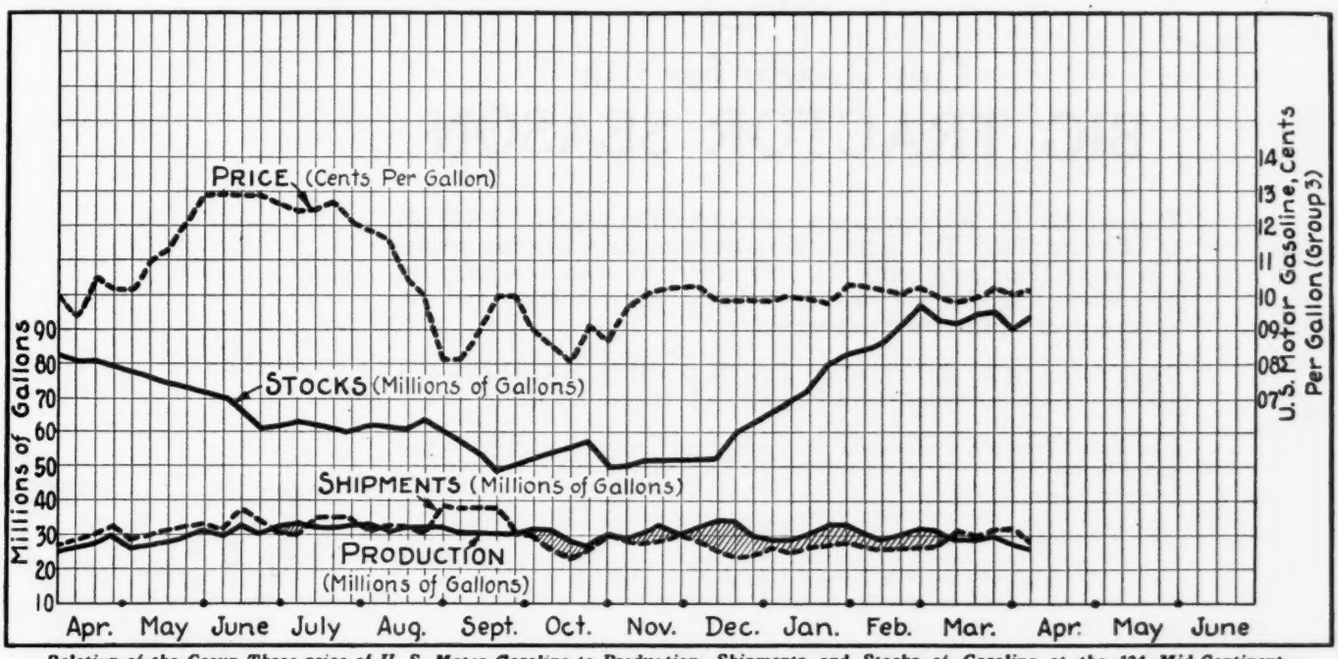
1916-26—TEN YEARS OF MANUFACTURING AND DISTRIBUTING PETROLEUM PRODUCTS OF QUALITY

ENTIRE CONTENTS COPYRIGHTED, 1926, BY SINCLAIR REFINING CO.

Refinery - Tank Wagon Markets

National Petroleum News

Barometer of the Mid-Continent Gasoline Market



Relation of the Group Three price of U. S. Motor Gasoline to Production, Shipments and Stocks of Gasoline at the 124 Mid-Continent plants reporting their figures weekly to National Petroleum News.

Group 3 Kerosene Highest in Five Years

TULSA, April, 19.

A REVIVAL of jobber buying, caused by the long expected return of good weather, and an advance of 1 cent a gallon in tank wagon price of kerosene by the Standard Oil Co. of Indiana, jerked the Mid-Continent refinery market back to its feet in time for it to show considerable strength as last week ended with indications of better days ahead.

The better gasoline market was generally expected as soon as the weather became favorable, and there was nothing surprising in the upturn in prices from that direction. The kerosene advance, however, wasn't expected.

The advance means that 41-43 water white kerosene in Group 3 has leaped over the 7 cent per gallon mark—the highest price in the last five years.

The price of 41-43 kerosene climbed early this year until it hovered just under 7 cents, but didn't quite get over, although a refiner or two reported some sales direct to the trade at 7 cents. The market eased off, however, as stocks of kerosene began to increase, then firmed up as spring demand started. The prices went back to the level of those earlier in the year, but no one expected to see strength enough to go over 7 cents so far along in spring.

The advance by the Standard of Indiana, however, changed the picture, with the result that Saturday 41-43 kerosene was selling for an average of 7⅜ cents in Oklahoma.

The question now is, "Can the refiners hold to at least a part of the advance they immediately tried to absorb when it was made?"

The answer probably will be learned within the next few days. The advance, coming as it did on Thursday, was too late in the week, however, for even an indication of the future at the close of business Saturday.

There are one or two factors which might indicate the refiners can get the higher prices right along until the spring demand sags late in May or early in June. One factor is the scarcity of kerosene in storage in the Mid-Continent, as shown by reports of 124 refiners to National Petroleum News.

For the week ended April 9, approximately 7,700,000 gallons of kerosene were in storage, whereas shipments for the same week totaled approximately 5,350,000 gallons. At the current rate of shipment, therefore, there is less than 12 days' supply of kerosene in the Mid-Continent. This figure appears favorable for the refiners, unless jobbers throughout the consuming territory, have their kerosene tanks already full in anticipation of spring demand.

Gasoline Still More Profitable

ANOTHER factor is the statement of several refiners who have not been producing kerosene that they do not intend to make any unless the price is at least 8 cents. They have figured that by careful fractionation the normal kerosene cut can be made to produce 85 per cent gasoline, and until the price of 41-43 kerosene reaches 8 cents, there is more profit in the gasoline yield than in kerosene.

It is known that considerable kerosene had been bought for shipment over April previous to the Standard's advance. If any quantity of this oil is in the hands of brokers or marketers, shading of refiners' prices sufficiently to get the business and still make a profit may appear with its resultant effect on the market.

Distillates are going to feel the kerosene advance to a certain extent. Distillates are already scarce throughout the Mid-Continent, and refiners are going to cut still deeper into the distillates for kerosene.

(Continued on Page 116)

triple C

Get Ready for the BIG TRACTOR SEASON

Dependable tractor operation is assured by the use of "TRIPLE C" Tractor Oils. The unusual heat resisting and wearing qualities make these lubricants the best sellers in every community. The lubricating film will not break down. Over-heating and excessive wear is, therefore, prevented.

They are made in three grades—DARK GREEN, E-GREEN and RED. We recommend them for the long continuous spring work.

Feature "Triple C" Tractor Oils and you'll get the bulk of the farm business.

We also manufacture a full line of Pennsylvania Motor Oils under our own brand of PENN-TONE.

We will put these oils up under your own brand name if desired. Write for prices. Shipped promptly in any quantity.

Keystone Oil & Manufacturing Division

Central Commercial Company

332 South Michigan Avenue **Chicago**

STASO
ALL WEATHER TRANSMISSION LUBRICANT

This all-weather transmission lubricant is another leader. It is noted for its lubricating qualities in zero weather or summer heat.

TRIPLE C

Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

GASOLINE AND NAPHTHA

PENNSYLVANIA	Prices April 19	Prices April 12	Prices April 5
52-54 Naphtha	12 -12¼	11½-11¾	11¾-12
54-56 Naphtha	12¼-12½	11¾-12¼	12¼-12½
58-60 Gasoline	12¾-13	12½-12¾	12½-12¾
60-62 Straight-run gasoline	-13½	13 -13½	12¾-13¼
64-66 Straight-run gasoline	14½-15	14 -14½	14½-15
68-70 Straight-run gas. 350-360 E.P.	15½-16	15½-16	15½-16
68-70 Straight-run gas. 305-320 E.P.	-20	19 -20	19 -20
70-72 Straight-run gas. 300-305 E.P.	.....	.....	-20
OKLAHOMA			
48-50 450 E. P. naphtha	- 9¼	9 - 9¼	9 - 9¼
50-52 450 E. P. naphtha	9¼- 9½	9 - 9¼	9 - 9¼
56-58 450 E. P. gasoline	- 9¾	9¾- 9¾	- 9¾
56-58 U. S. Motor gasoline	-10	9¾- 9⅞	9¾- 9⅞
58-60 450 E. P. gasoline	-10	.....	.....
58-60 U. S. Motor 437 E. P.	-10¼	10 -10¼	10 -10¼
60-62 400 E. P. gasoline	11¼-11¾	11 -11¾	11¼-11¾
64-66 390 E. P. gasoline	11¾-11¾	11¾-11¾	11¾-11¾
64-66 375 E. P. gasoline	-12¼	12 -12¾	12¼-12¾
68-70 350-360 E. P. gasoline	12¾-13	12¾-13	12¾-13
64-66 437 E. P. blend	9¾- 9⅞	9¾- 9⅞	9¾-10
KANSAS*			
58-60 U. S. Motor gasoline	-10¼	10¼-10½	-10½
60-62 400 E. P. gasoline	11¾-11½	11¾-11½	11¾-11½
64-66 375 E. P. gasoline	12½-12¾	12½-12¾	12½-12¾
*F. O. B. refinery Kansas destination.			
NORTH TEXAS			
48-50 450 E. P. naphtha	- 9¼	9 - 9¼	9 - 9¼
56-58 450 E. P. gasoline	9⅝- 9¾	9⅝- 9¾	9⅝- 9¾
58-60 450 E. P. gasoline	9¾-10	9¾- 9⅞	9¾- 9⅞
56-58 U. S. Motor gasoline	9¾-10	9¾- 9⅞	9¾- 9⅞
58-60 U. S. Motor gasoline	10 -10¼	-10	10 -10¼
64-66 390 E. P. gasoline	11⅞-12	11⅞-12	12 -12⅛
64-66 375 E. P. gasoline	12¼-12⅜	12¼-12¾	12¼-12½
68-70 350-360 E. P. gasoline	-12¾	-12¾	12¾-13
NORTH LOUISIANA			
58-60 U. S. Motor 437 E. P.	10⅜-10½	-10¾	10¼-10⅜
ARKANSAS			
58-60 450 E. P. gasoline	-10¼	-10	-10
58-60 U. S. Motor gasoline	-10½	-10¼	-10¼
64-66 375 E. P. gasoline	12¼-12½	12¼-12½	12¼-12½
CALIFORNIA			
54-56 U. S. Motor gasoline	12½-13	12½-13	13 -13½
42-45 Engine distillate, 445-480 E.P.	10½-11	10½-11	11 -12½

Note: This is without the 2-cent state tax included in the price of California refiners for shipments within the state.

NEW ENGLAND (F. O. B. Boston and Fall River)			
U. S. Motor gasoline	-13½	-13¾	-13¼

NATURAL GASOLINE

(Note: End point of all grades, not over 375° F.)

OKLAHOMA			
Grade Double A	- 9	8¾- 9	9 - 9⅛
Grade A	- 9	8⅞- 9	9 - 9⅛
Grade Double B	- 8	- 8	8⅛- 8¼
Grade B	- 8	- 8	8⅛- 8¼
Grade C	7¾- 8	7⅝- 7⅞	- 8

NOTE—Specifications adopted by Ass'n. of Nat. Gaso. Manufacturers
Grade Double A—80-87.9 gravity, 90% recovery, not over 375 E. P.
Grade A—72-79.9 gravity, 90% recovery, not over 375 E. P.
Grade Double B—84-92 gravity, 85% recovery, not over 375 E. P.
Grade B—76-83.9 gravity, 85% recovery, not over 375 E. P.
Grade C—80-90 gravity, 78% recovery, not over 375 E. P.

NORTH LOUISIANA			
*Grade Double A	9½- 9¾	9½- 9¾	-10
*Grade Double B	8¾- 9	8¾- 9	8¾- 9
*Grade C	8½- 8¾	- 8¾	- 8¾
*F. O. B. Monroe District.			
NORTH TEXAS			
*Grade Double A	- 9	- 9	9 - 9¼
*Grade A	- 9	- 9	9 - 9¼
*Grade Double B	8 - 8¼	8 - 8¼	8¼- 8½
*Grade B	8 - 8¼	8 - 8¼	8¼- 8½
*Grade C	7¾- 8	7¾- 8	8¼- 8¼
*F. O. B. Breckenridge.			
CALIFORNIA			
78-84° 375 E. P.	17 -17½	17 -17¼	17 -17½
PENNSYLVANIA			
68-70 Grav. 437 E. P.	12¾-13	12¾-13¼	12¾-13¼
64-66 Grav. 437 E. P.	12¾-13	12¾-13¼	12¾-13¼
60-62 Grav. 437 E. P.	12¾-13	12¾-13¼	12¾-13¼
68-70 Grav. 420 E. P.	13½-14	13½-14	13½-14

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	- 9	- 9	- 9
46 Water White Kerosene	- 9¼	9¼- 9¼	9¼- 9¼
47 Water White Kerosene	9¾-10	9¾-10	9¾-10
300 Burning Oil	8 - 8½	8 - 8½	- 8½
OKLAHOMA			
41-43 Water White Kerosene	7¾- 7⅞	6¾- 6⅞	6¾- 6¾
42-44 Water White Kerosene	- 7¾	7⅞- 7¾	7⅞- 7¾
KANSAS			
41-43 w. w. kerosene	7¾- 8¼	- 7⅝	7⅜- 7⅝
42-44 w. w. kerosene	- 8½	- 7¾	- 7¾

NORTH TEXAS	Prices April 19	Prices April 12	Prices April 5
41-43 Water White Kerosene	7 - 7¼	7 - 7⅛	7 - 7⅛
NORTH LOUISIANA			
41-43 Water White Kerosene	7 - 7¼	7 - 7¼	7 - 7¼
ARKANSAS			
41-43 Water White Kerosene	- 7½	- 7⅛	- 7⅛
CALIFORNIA			
38-40 Water White Kerosene	8 - 8½	8 - 9	10 -11
NEW ENGLAND			
*40-43 Water White Kerosene	.....	-9¼	- 9¼

NEUTRAL OIL

PENNSYLVANIA (Viscosity at 70° F.)			
200 Vis. No. 3 Assoc. Filt.	27½-28	27½-28	27½-28
180 Vis. No. 3 Assoc. Filt.	25½-26	25½-26	25½-26
150 Vis. No. 3 Assoc. Filt.	21½-22	21½-22	21½-22
(Non-Viscous)			
34 Grav. 350-360 Flash	8 - 8¼	8 - 8¼	8 - 8¼
36 Miners Neutrals 300-305 Flash	7¼- 7¾	7¼- 7¾	7¼- 7¾
OKLAHOMA (Viscosity at 100° F.)			
100 Vis. No. 2 color	6½- 7¾	6½- 7¾	6½- 7¾
150 Vis. No. 3 color	9½-11	9½-11	10 -11
150 Vis. No. 4 color	9½- 9¾	9½- 9¾	9½- 9¾
180 Vis. No. 3 color	10¼-10½	10¼-10½	10¼-10½
180 Vis. No. 4 color	10- -10½	10 -10½	-10½
180 Vis. No. 5 color	-10¼	-10¼	-10¼
200 Vis. No. 3 color	-11¼	-11¼	-11¼
200 Vis. No. 4 color	11¼-11½	11¼-11¼	11¼-11¼
200 Vis. No. 5 color	9½-11¼	9½-11¼	9½-11¼
220 Vis. No. 3 color	12 -13	12 -13	12 -13
220 Vis. No. 4 color	13 -13¼	13 -13¼	13 -13¼
220 Vis. No. 5 color	-12¾	-12¾	-12¾
240 Vis. No. 3 color	14 -16	14 -16	14 -16
240 Vis. No. 4 color	14¼-14½	14¼-14½	14¼-14½
240 Vis. No. 5 color	-14	-14	-14
280 Vis. No. 3 color	16 -17	16 -17	16 -17
280 Vis. No. 4 color	16¼-16½	16¼-16½	16¼-16½
280 Vis. No. 5 color	15¾-16	15¾-16	15¾-16
300 Vis. No. 5-6 color	17 -18½	17 -18½	17 -18½
GULF COASTAL (Viscosity at 100° F; cold test 0)			
100 Vis. No. 2 Color Unfilt. Pale	7½- 8	7½- 8	7½- 8
200 Vis. No. 3 Color Unfilt. Pale	11½-12	11½-12	11½-12
300 Vis. No. 3 Color Unfilt. Pale	13 -13½	13 -13½	13 -13½
500 Vis. No. 3½ Color Unfilt. Pale	15 -15½	15 -15½	15 -15½
750 Vis. No. 4 Color Unfilt. Pale	18½-19½	18½-19½	18½-19½
200 Vis. No. 5½ Color Red Oil	9½-10	9½-10	9½-10
300 Vis. No. 5½ Color Red Oil	11½-12	11½-12	11½-12
500 Vis. No. 6 Color Red Oil	13 -13½	13 -13½	13 -13½
750 Vis. No. 6 Color Red Oil	17 -18	17 -18	17 -18
CALIFORNIA (Viscosity at 100° F.)			
100 Vis. No. 2 color	11 -11½	11 -11½	11 -11½
100 Vis. No. 3 color	8½- 9	8½- 9	8½- 9
200 Vis. No. 3 color	13½-14	13½-14	13½-14
300 Vis. No. 3 color	15 -15½	15 -15½	15 -15½
450 Vis. No. 3½ color	18 -18½	18 -18½	18 -18½
550 Vis. No. 3 color	20 -21	20 -21	20 -21
600 Vis. No. 3½ color	21 -22	21 -22	21 -22
100 Vis. No. 5 color	7 - 7½	7 - 7½	7 - 7½
200 Vis. No. 5 color	12 -12½	12 -12½	12 -12½
300 Vis. No. 5 color	13 -13½	13 -13½	13 -13½
400 Vis. No. 5 color	15 -16	15 -16	15 -16
500 Vis. No. 5 color	16 -17	16 -17	16 -17
600 Vis. No. 6 color	17 -18	17 -18	17 -18
700 Vis. No. 7 color	18 -19	18 -19	18 -19

CYLINDER STOCKS

OKLAHOMA			
190-200 Vis. at 210° Bright Stock	31 -35	31 -35	31 -35
150-160 Vis. at 210° Bright Stock	27 -31	27 -31	28 -31
600 E Stock, 140-150 Vis. — 210°	18 -20	18 -20	18 -20
600 Steam Refined Olive Green	8½-11	8½-11	8½-11
600 Steam Refined Dark Green	6½- 7	6½- 7	6½- 7
Black Oil	5 - 6	- 5	- 5
PENNSYLVANIA (1-inch Immersion Test)			
600 Steam Refined	15½-16¼	15⅜-16½	16 -17
650 Steam Refined	21 -21½	21 -22	21 -22
600 Flash	25½-26	25 -26	25 -26
625 Flash Steam Refined	34½-35	-34	-34
600 Warren E	21 -21½	21 -21½	21 -21½
600 Oil City E	20 -20½	20 -20½	20 -20½
600 Filtered D	26 -27	26 -27	26 -27
Cold Test Stocks (bright filtered)	38 -39	37 -38	36½-38
Cold Test Stock (dark filtered)	36 -37	35 -36	34½-36

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher.)

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

*No refiner quoting April 19.

(Continued from Page 113)

There is no denying that weather helped the gasolines. As predicted a week ago, it required only two or three days of generally fair weather to start the inquiries rolling in once more. They started in slightly increased volume as early as Monday. By Thursday it was becoming difficult to get any 58-60 U. S. Motor gasoline in Oklahoma at 10 cents. Friday marketers and brokers could find only odd cars under 10⅛ cents.

The weather still holds the key to April business. If the weather is at all favorable, the consensus of opinion is that U. S. Motor gasoline will be 10¼ to 10½ cents for the remainder of April, and probably 10½ cents or slightly more in the first week or two in May.

That is about as far as anyone is willing to predict. The salesmanager of one of the largest refineries in the Mid-Continent, however, thinks there will be no 12¾ to 13 cent U. S. Motor gasoline this year. He believes 12 cents will be the top price, with the average between 11¾ and 12 cents.

Exporters Inactive

TEXAS refiners who have been producing a variety of gasoline blends under the "U. S. Motor" name, are getting away from that now, according to reports, and more strictly 58-60, U. S. Motor gasoline is appearing on the market.

Exporters have shown no interest in the market. One buyer had an inquiry out for around a million gallons of 390 end point gasoline. He succeeded in getting the order filled, several refiners taking parts of the order.

Refiners report domestic demand for the higher gravity gasolines is slowly slipping, as is to be expected as the season for light gasolines draws to a close. The buyer of one of the larger jobbers in the north, however, said Saturday that it has been their experience that higher gravity gasoline sells as readily in the summer as in the winter months.

The fuel oil demand subsided somewhat with the advent of warmer weather, but prices remained practically unchanged. Whereas considerable fuel was bought around April 1 for shipment over the month, the majority of buyers now say they would not buy even over the remainder of the month at present prices, although they realize the present scarcity of fuel oils is likely to hold until well into the summer.

Natural gasolines followed the lead of straightrun goods and perked up as the week closed. Manufacturers report inquiries are more numerous, and a better market is generally expected for the remainder of April.

Naturals Shipped to California

ONE interesting bit of information has been divulged with reference to naturals. Shipments are now being made from the Mid-Continent to California by rail, the first time this has been done in several years.

The freight rate and the long haul have heretofore prevented Mid-Continent manufacturers from making a profit. It is reported, however, that with the present high prices of natural gasolines in California, the 7½ cents a gallon freight rate is no longer a bar to shipments to that state. It also is understood buyers are allowing manufacturers a 4-inch outage, although it is probable the outage is actually slightly more than this on such a long haul. With Grades A and AA in the Mid-Continent around 9 cents a gallon, the material delivered in California would be 16½ cents a gallon, a cent under the California price.

Neutral oils and cylinder stocks have been steady for the last several weeks. The demand has been good, refiners report, but with a few exceptions prices have remained unchanged since new price lists were issued by the larger companies last February after crude oil prices were advanced.

Wax was quiet at 5 cents.

Magnolia Runs Are Up In March

HOUSTON, March 17.—Magnolia Petroleum Co., pipe line department, announces from Dallas headquarters the following crude oil runs for March, which are shown in comparison with February:

	February	March
Hewitt	74,351.32	88,939.95
Healdton	186,418.50	212,658.15
Cushing	262,394.70	253,624.48
Yale	55,826.11	62,055.84
Cement	18,922.70	22,703.31
Duncan	43,146.23	48,118.03
Augusta, Kans.	35,071.95	38,867.17
Walters-Beaver Creek	7,505.66	7,959.50
Bristow		
Burbank	43,590.08	45,811.81
Wewoka	304,718.17	361,928.26
Total Okla. Kans.	**1,031,945.42**	**1,142,666.50**
Thrall	1,488.92	1,679.44
Electra	99,189.48	107,044.52
Burkburnett	75,310.02	84,460.77
Henrietta	6,403.20	6,683.09
Corsicana Heavy	8,138.24	9,054.92
Corsicana Light	22,358.38	20,928.30
Comanche	22,941.96	24,077.33
Olden	28,514.59	26,625.24
Stephens	14,624.10	14,200.79
Coleman	304.32	533.55
Mirando	36,249.96	76,365.47
Mexia	1,430.23	909.69
Luling	192,510.49	214,394.73
Archer	62,335.73	65,123.28
Lytton Springs	135,315.34	132,663.18
Iatan	4,106.63	5,360.45
Panola County		1,330.17
Total Texas	**711,221.59**	**791,434.92**
Haynesville	5,182.64	6,441.05
Bull Bayou	33,476.39	38,286.90
Cotton Valley	8,559.06	679.43
Total Louisiana	**47,218.09**	**45,407.38**
El Dorado light	76,297.57	4,409.22
East El Dorado	2,360.51	2,769.03
Smackover		90,247.08
Total Arkansas	**78,658.08**	**97,425.33**
GRAND TOTAL	**1,869,043.18**	**2,076,934.13**

OKLAHOMA-KANSAS

Report for March, 1926		Daily Average
Runs	1,142,666.00	36,860.00
Shipments	1,490,078.00	48,067.00
STOCKS	5,142,309.00	

TEXAS

Wichita, Wilbarger & Archer	Runs	256,629	8,278
	Shipments	269,637	8,698
Petrolia	Runs	6,683	216
	Shipments	6,242	201
Eastland & Stephens	Runs	64,903	2,094
	Shipments	122,542	3,953
Total Stocks Texas		2,135,628.00	North Central

A New Ruling On Oil Depletion Allowance

WASHINGTON, April 17.—The Income Tax Unit of the treasury has recently made a ruling in respect to depletion allowance that may be of interest. As stated by the treasury, the question was whether an allowance, based upon discovery, in excess of the market value of the product of the property (well) to which the discovery valuation applied, might be applied against income from other sources. The unit held:

Under the provisions of section 214(a) 10 and 324(a)9 of the revenue act of 1918, taxpayers who discover oil and gas wells on or after March 1, 1913, may under the circumstances therein prescribed, determine the fair market value of such property at the date of discovery or within 30 days thereafter for the purpose of ascertaining allowable deductions for depletion. (Article 220, regulations 45.) The property which may be valued after discovery of oil or gas is the "well" (Article 220(a)3, Regulation 45.)

Depletion based upon discovery value in no case should be allowed in excess of the market value of the oil and gas recovered from the property (well or wells) to which the discovery valuation applies.

Simms and Atlantic Buy Crane County Acreage

HOUSTON, April 17.—Announcement is made at Dallas of the purchase by the Simms Oil Co. and the Atlantic Oil Producing Co. of 1280 acres of University of Texas permits surrounding the Crane county well recently drilled in by Church & Fields and afterwards sold to the Magnolia Petroleum Co.

The Atlantic-Simms deal was made with J. D. Collett, C. A. O'Keefe and Joe T. O'Keefe of Fort Worth. Consideration was announced as $100,000 in cash and $400,000 out of half of the oil when, if and as produced.

The previously announced Magnolia deal involved about the same amount of acreage and the Church & Fields part interest in the well and the 40 acres on which it is located. That trade involved final consideration of about $400,000, of which about $250,000 is to be paid out of oil.

The well, in sec. 34, block 30, is still in an uncompleted stage at 3020 feet, standing 2500 feet in oil.

BELOIT, O.—The new filling station of the Westville Oil & Gas Co., located on the Cox highway between Salem and Alliance, O., was opened on Apr. 15. Bulk storage consists of two 20,000 gallon tanks and a 3500 gallon underground storage tank at the station. Meter equipment is used for handling gasoline and oil.

E. J. Dillis is president and V. E. Stanley is treasurer and general manager.

Refinery Markets on Wax and Heavy Oil Products

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

WAX

PENNSYLVANIA	Prices April 19	Prices April 12	Prices April 5
	(Per Pound, New York)		
122-124 White Crude Scale..	– 5¼	– 5¼	– 5¼
124-126 White Crude Scale..	– 5⅜	– 5⅜	– 5⅜
OKLAHOMA			
	(Per Pound, Group 3)		
124-126 White Crude Scale..	– 5	4⅞– 5	5 – 5⅛
CALIFORNIA			
White Crude Scale.....	5¾– 6	6 – 6¼	6 – 6¼

FUEL OIL

PENNSYLVANIA			
36-40 Fuel Oil.....	– 6¼	6¼– 6¼	6 – 6¼
30-34 Fuel Oil.....	6 – 6¼	5¾– 6	5¾– 6
28-30 Fuel Oil.....	6 – 6⅛	5¾– 6	5¾– 6
OKLAHOMA			
38-40 Straw distillate.....	4½– 4⅝	4½– 4⅝	4⅜– 4½
36-38 Straw distillate.....	4¼– 4⅜	4¼– 4⅜	– 4¼
32-36 Gas oil (Gal.).....	4⅜– 4¼	4¼– 4⅜	– 4¼
26-30 Fuel oil (Bbl.).....1.50	–1.60	1.50 –1.60	1.45 –1.55
24-26 Fuel Oil (Bbl.).....1.40	–1.45	1.40 –1.45	1.35 –1.45
22-26 Fuel Oil (Bbl.).....1.32½	–1.35	1.32½–1.37½	1.30 –1.35
18-22 Fuel Oil (Bbl.).....	–1.30	–1.30	1.27½–1.30
KANSAS*			
38-40 Light straw distillate..	– 5	4¾– 5	4½– 4¾
36-38 Light straw distillate..	4½– 4¾	4½– 4¾	– 4⅜
32-36 Gas Oil.....	4½– 4⅝	4½– 4⅝	– 4¼
18-22 Fuel Oil.....1.35	–1.40	1.35 –1.40	1.30 –1.35
24-26 Fuel Oil.....1.45	–1.55	1.45 –1.55	1.40 –1.50
*F. O. B. refinery, Kansas destination.			
NORTH TEXAS			
38-40 Straw Distillate.....	– 4½	– 4½	4¼– 4⅜
36-38 Straw Distillate.....	.....	.....	4⅜– 4¼
32-36 Gas Oil (Gal.).....	4¼– 4¼	4 – 4¼	4 – 4⅛
24-26 Fuel per (Bbl.).....1.45	–1.50	1.47½–1.50	–1.50

GULF COASTAL	Prices April 19	Prices April 12	Prices April 5
Fuel.....1.55	–1.65	1.55 –1.65	1.55 –1.65
Gas Oil.....	– 5¼	– 5¼	– 5¼
NORTH LOUISIANA			
32-36 Light Gas Oil (Gal.)...	4¼– 4½	4¼– 4½	4¼– 4½
16-20 Fuel Oil (Bbl.).....	–1.20	1.15 –1.20	–1.20
ARKANSAS			
32-36 Gas Oil.....	4¼– 4½	– 4½	4¼– 4½
Smackover Crude Fuel.....1.07½	–1.12½	1.07½–1.12½	1.10 –1.12½
Road oil.....	–1.26	–1.26	–1.26
CALIFORNIA*			
14-18 Fuel Oil (Bbl.).....	1.00	1.00	1.00
14-18 Bunker Oil (Bbl.).....	1.00	1.00	1.00
24-30 Gas Oil (Bbl.).....	1.15	1.15	1.15
27 + Diesel Oil (Bbl.).....	1.15	1.15	1.15
*(San Joaquin Valley, San Francisco 4c per bbl. more.)			
NEW ENGLAND			
	(F. O. B. Boston and Fall River)		
*30-32 Gas Oil (Gal.).....	– 5½	– 5¾	– 5¾
*Fuel Oil (Bunker C) Bbl...	–1.80	–1.82½	–1.82½

PETROLATUMS

PENNSYLVANIA			
Snow White.....	–11	–11¾	–11¾
Lily White.....	– 9½	– 9½	– 9½
Cream White.....	– 6¾	– 6⅞	– 6⅞
Light Amber.....	– 3⅞	– 3⅞	– 3⅞
Amber.....	– 3⅝	– 3⅝	– 3⅝
Red.....	– 3¼	3 – 3½	3 – 3½
Green.....	1¾– 2	1¾– 2	1¾– 2

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

*Only one refiner quoting.

Refining Expert Heads Southern Sales

HOUSTON, April 19.—Organization shifts in The Texas Co. have resulted in the appointment of Fred T. Manley as general sales manager for the southern district, succeeding the late C. P. Dodge, who was killed in an automobile accident near Memphis, last January; the appointment of P. C. Scullin of New York and Luther R. Holmes of Houston to handle the refining department; and the election of Bert Hull to the presidency of The Texas Pipeline Co., subsidiary of The Texas Co.

Mr. Manley, who has been with the company about 20 years, had been previously general manager of the refining department to which position he was appointed two years ago. Prior to that time he had been assistant general manager under R. C. Holmes, who now is president of the company. He was one of the developers of the Holmes-Manley process stills used in plants of The Texas Co., and licensed to others. In his new work Mr. Manley takes over the duties of Mr. Dodge as regards sales; the office of secretary, also held by Mr. Dodge, was not filled at the recent annual election.

Mr. Scullin, also a former assistant general manager of refineries, was transferred to New York from Houston about two years ago. Luther Holmes, who takes active charge of plant operations at the Houston office, has been recently an assistant general manager of refineries and previously was general superintendent of terminals. He was transferred to Houston from New York some time ago.

Fred T. Manley, one of the developers of the Holmes-Manley cracking process, now general southern sales manager, The Texas Co.

Bert Hull, before becoming president of The Texas Pipeline Co. was general manager of The Texas Co. of Mexico, S. A., at Tampico, succeeding to that position about three years ago, when Dan J. Moran came to Houston as vice president in charge of production of The Texas Co. Prior to that Mr. Hull had been chief engineer of the refining department at Port Arthur, Texas. James Hall of New York succeeds Mr. Hull at Tampico.

Supply Houses Increase Profits in 1925

CLEVELAND, April 19.—Supply companies increased their net profits in 1925 according to their annual reports.

Oil Well Supply Co. netted $1,442,710 after all charges, equivalent to $4.31 per $25 share on the common stock after preferred dividends. Net income in 1924 was less than half the 1925 profits. Oil Well's 1925 dividends were $40,833 on the preferred and $672,377 on the common. Total assets on Dec. 31 amounted to $29,277,296 and net assets to $24,174,547.

National Supply Co. netted $2,014,757 after all charges, compared with $1,847,269 in 1924. On Dec. 31 total assets amounted to $36,534,332, and net assets to $32,546,364.

GLOVERSVILLE, N. Y.—Williams Bros., which is comprised of Manley and Walter Williams as partners, are carrying a large line of automobile accessories in addition to gasoline, kerosene and oils. Storage capacity at their service station, which was completed last August, is 30,000 gallons. Pennzoil products are handled.

Market Section

Gasoline Shows Slight Improvement In Chicago Market

Staff Special

CHICAGO, April 17

GENERAL slight improvement was evidenced in light products the past week in the Chicago market. Generally fair weather was the rule for most of the northern consuming territory but accompanied by abnormally low temperatures which gave little urge to joyriding. A gradual increase in consumption, and in jobber buying, however, was apparent and by Friday business in Chicago was fairly active.

Prices on 58-60 U. S. Motor gasoline show very little change. Early in the week the spread on this grade was 10 to 10¼ cents; only occasional sales being made at the latter figure. The market closed firm on Saturday at 10⅛ to 10¼ cents, with only occasional sales being made at the lower price. At no time during the week was any appreciable amount of distress material thrown on the market. Refiners' contracts apparently are taking care of the smaller amount of gasoline produced from their greatly reduced runs of crude to stills, and the April purchases of the majority of marketers have not been such that they have been forced to seek buyers outside their own regular trade.

With the approach of warmer weather, lower gravity gasolines are commencing to get better play. Several Chicago marketers have already purchased 58-60, 450 e. p. gasoline for their May requirements in place of the lower end point material, and one Chicago jobber has substituted 58-60, 450 end point gasoline for U. S. Motor on his April requirements of fifty cars. A marketer has purchased approximately 100 cars of U. S. Motor gasoline for shipment over first 20 days in May at prices in line with quotations shown above.

The weather outlook for the coming week is gratifying in that precipitation is confined to Wednesday and Thursday; generally fair weather is forecast for the remainder of the week. Temperatures will average normal or slightly below.

Considerable interest was aroused in the Chicago trade this week by persistent rumors that The Texas Company was going to start selling a high test gasoline at the same price as Red Crown, at the same time abolishing the Q. D. A. Although comparatively reliable information was received outside The Texas Co. organization to the effect stocks of high test had been greatly enlarged in the last few weeks, positive denial of knowledge of any such sales developments was issued by the Chicago office on Friday of this week.

Kerosene was the most interesting product to the trade this week. The 41-43 gravity grade was firm to strong at 6¾ to 7 cents, previous to the tank wagon advance of 1 cent made by Standard Oil Co. of Indiana on Friday, April 16. Prices moved up from ¼ to ½ cent, immediately following the advance and good volume of sales was made by several companies at 7¼ cents on Friday and Saturday. Six refiners are known to be buying kerosene, due to the fact that their cuts for this class of material have been too small to meet their needs. The 42-44 water white grade is scarce and nominally quoted at 7½ to 7¾ cents.

The light fuel demand has held up fairly well considering the time of year. Distillate of 38-40 gravity, straw color, was steady over the week at 4½ to 4⅝ cents, but gas oil eased off in price by virtue of the fact that offerings were much more free than they have been for two or three weeks past. Cracked gas oil was available as low as 4⅛ cents on Saturday; straight run goods was bringing from 4¼ to 4⅜ cents.

The fuel oil situation continues rather tight, but marketers apparently are looking for a break in prices inasmuch as several are selling short over May.

Week's Price Changes Tank Wagon Markets

Gasoline Changes

Standard of New Jersey—In the **April 8,** ½ cent gasoline advance in West Virginia, it was first reported that this was effective throughout the state, excepting at Charleston, Parkersburg and Huntington. Another point which the advance did not affect was Wheeling. T. w. price there remains 16.5 cents, not including road tax.

Standard of Louisiana—T.w. and s.s. prices gasoline reduced ½ cent, in Tennessee, **April 12.**

Magnolia Petroleum—S. s. price only of gasoline at Ft. Worth cut 1 cent, to 15 cents, **April 16.** S. s. price only at San Antonio cut 2 cents, San Antonio, to 15 cents, **April 13.**

Kerosene Changes

Standard of Indiana—T.w. price kerosene advanced 1 cent throughout territory, **April 16.**

Continental Oil—T.w. price kerosene advanced 1 cent, Colorado, Wyoming and New Mexico, **April 19.**

Standard of New Jersey—T.w. price kerosene reduced 1 cent at Washington, D. C., only, to 14 cents, **April 20.**

Standard of Nebraska—T. w. price kerosene advanced 1 cent, through Nebraska, **April 16.**

PLATT'S
OILGRAM
Petroleum Markets-Every Day

That Green Envelope!

"I LOOK for that green envelope *first thing* every morning. Yes—it is opened *before* any telegrams."

These are the exact words of a Tulsa jobber, referring to the "green envelope" that brings the OILGRAM to him every morning.

Mind you—a jobber located right in Tulsa, the heart of the oil market—looks to the OILGRAM *first* for accurate, unbiased information on the day's oil market.

How much more do you buyers and sellers of petroleum products who are not located in Tulsa, need the Group 3 market on your desk every morning!

30 cents a day will bring this fast daily market service to you, $75 a year, or $25 for 3 months, payable in advance.

PROTECT your trades in oil with PLATT'S OILGRAM on your desk every morning. Send for your service to the nearest mailing point.

TULSA—608 Bank of Commerce Bldg.
CHICAGO—360 N. Michigan Ave.
CLEVELAND—841 Caxton Bldg.

Foreign Opportunities

19929.—**Gasoline, fuel oil and lubricating oils,** Montevideo, Uruguay, agency.

19934.—**Paraffin wax,** Hamburg, Germany, agency.

19943.—**Lubricating oils and greases,** Vienna, Austria, agency.

19966.—**Automobile oils,** Santo Domingo, Dominican Republic, agency.

19967.—**Gasoline, kerosene and paraffin wax,** Antofogasta, Chile, agency.

19968.—**Fuel oil,** 57,000 tons, Montevideo, Uruguay, purchase.

19988.—**Paraffin wax,** Liverpool, England, purchase.

20027.—**Lubricating oils and greases,** Teneriffe, Canary Islands, purchase and agency.

20028.—**Paraffin,** Vienna, Austria, purchase and agency.

20029.—**Bitumen,** Zittau, Germany, purchase.

20030.—**Paraffin,** La Paz, Bolivia, purchase or agency.

20031.—**Kerosene,** Bombay, India, purchase.

20032.—**Lubricating oils,** Vienna, Austria, purchase or agency.

20066.—**Bitumen and asphalt,** Lyon, France, purchase.

Tank Wagon, Service Station Markets for Gasoline and Kerosene In United States Territories and Canada

These Prices in Effect April 19, 1926

S.O. NEW JERSEY TERRITORY

	Gasoline T.W.	Tax	Total	S.S.	Oil T.W.
Atlantic City, N. J.	17	0	17	*	15
Newark, N. J.	17	0	17	19	15
Annapolis, Md.	17	2	19	*	15
Baltimore, Md.	17	2	19	22	15
Cumberland, Md.	17	2	19	22	15
Washington, D. C.	17	2	19	22	15
Danville, Va.	17	4½	21.5	*	15
Norfolk, Va.	17	4½	21.5	24.5	15
Richmond, Va.	17	4½	21.5	24.5	15
Roanoke, Va.	17	4½	21.5	24.5	15
Petersburg, Va.	17	4½	21.5	*	15
Williamsburg, Va.	17	4½	21.5	*	15
Charleston, W. Va.	16.5	3½	20	23	15
Clarksburg, W. Va.	17	3½	20.5	23.5	15
Keyser, W. Va.	17	3½	20.5	*	15
Parkersburg, W. Va.	16.5	3½	20	23	15
Wheeling, W. Va.	16.5	3½	20	23	15
Charlotte, N. C.	17	4	21	24	15
Hickory, N. C.	17	4	21	*	15
High Point, N. C.	17	4	21	*	15
Mt. Airy, N. C.	17	4	21	*	15
Salisbury, N. C.	17	4	21	*	15
Charleston, S. C.	17	5	22	25	15
Columbia, S. C.	17	5	22	25	15

*Dealers set own prices. S. O. New Jersey does not operate station

S. O. NEW YORK

*New York City	19	0	19	23	16
Albany, N. Y.	19	0	19	21	16
Buffalo N. Y.	18	0	18	21	16
Rochester, N. Y.	19	0	19	23	14
Syracuse, N. Y.	19	0	19	21	15
Boston, Mass.	19	0	19	22	16
Augusta, Me.	19	3	22	25	16
Manchester, N. H.	19	2	21	25	16
Burlington, Vt.	19	2	21	23	16

*In steel barrels.

ATLANTIC REFINING

Pittsburgh, Pa.	18	0	18	*23	16
Philadelphia, Pa.	18	0	18	*23	16
Allentown, Pa.	18	0	18	*23	16
Erie, Pa.	16	0	16	*21	14
Scranton, Pa.	18	0	18	*23	16
Altoona, Pa.	18	0	18	*23	16
Dover, Del.	18	2	20	23	16
Wilmington, Del.	18	2	20	23	16
Providence, R. I.	19	1	20	23	16
Springfield, Mass.	19	0	19	22	16
Worcester, Mass.	19	0	19	22	16
Hartford, Conn.	19	2	21	24	15
New Haven, Conn.	19	2	21	24	16
Boston, Mass.	19	0	19	22	16

*Contains 2-cent tax collected by retail dealer and paid by him directly to state.

S. O. KENTUCKY

Lexington, Ky.	17	5	22	25	16
Louisville, Ky.	18	5	23	26	15
Covington, Ky.	17	5	22	25	16
Clarksdale, Miss.	17	4	21	24	14.5
Jackson, Miss.	17	4	21	24	13.5
Natchez, Miss.	16.5	4	20.5	23.5	14
Vicksburg, Miss.	16.5	4	20.5	23.5	14
Birmingham, Ala.	18	2	20	23	16.5
Mobile, Ala.	17	2	19	22	15
Montgomery, Ala*	19	2	21	24	17.5
Atlanta, Ga.	†19	3½	23	26	17
Augusta, Ga.	†19	3½	23	26	17
Macon, Ga.	†19	3½	23	26	17
Savannah, Ga.	†16	3½	20	23	15
Jacksonville, Fla.	17	4	21	24	15
Miami, Fla.	19	4	23	26	16.5
Tampa, Fla.	17	4	21	24	15
Pensacola, Fla.	17	4	21	21	15.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia has ½ cent per gal. inspection fee on gasoline which is deducted as well as the state gasoline road tax of 3½ cents, to get the actual net tank wagon market to dealer.

S. O. INDIANA

	Gasoline T.W.	Tax	Total	S.S.	Oil T.W.
Chicago, Ill.	†17	0	†17	19	13
Decatur, Ill.	17.2	0	17.2	19.2	13.5
E. St. Louis, Ill.	16.1	0	16.1	18.35	12.6
Joliet, Ill.	17.4	0	17.4	19.4	13.7
Peoria, Ill.	17.2	0	17.2	19.2	13.5
Quincy, Ill.	17.2	0	17.2	19.2	13.3
Indianapolis, Ind.	17.2	3	20.2	22.2	13.7
Evansville, Ind.	17	3	20	22	13.5
South Bend, Ind.	17.4	3	20.4	22.4	13.9
Detroit, Mich.	17.8	2	19.8	21.8	14.2
Grand Rapids, Mich.	17.7	2	19.7	21.7	14.1
Saginaw, Mich.	17.9	2	19.9	21.9	14.3
Madison, Wis.	17.3	2	19.3	21.3	13.5
Milwaukee, Wis.	17.1	2	19.1	21.1	13.3
La Crosse, Wis.	18.2	2	20.2	22.2	14.4
Minneapolis, Minn.	18.2	2	20.2	22.2	14.6
Duluth, Minn.	16.5	2	20.5	22.5	14.6
Manhatto, Minn.	18.1	2	20.1	22.1	14.4
Des Moines, Iowa	17.5	2	19.5	21.5	13.9
Davenport, Iowa	17.5	2	19.5	21.5	13.9
Sioux City, Iowa	17	2	19	21	13.5
Mason City, Ia.	17.5	2	19.5	21.5	13.9
St. Louis, Mo.	*16.6	2	18.6	20.9	13
Kansas City, Mo.	††17.9	2	19.9	21.9	12.8
St. Joseph, Mo.	*17	2	19	21	12.9
Fargo, N. D.	19.9	1	20.9	22.9	16.6
Grand Forks, N. D.	20.2	1	21.2	23.2	16.9
Minot, N. D.	19.9	1	20.9	22.9	16.6
Pierre, S. D.	16	3	19	21	15.1
Huron, S. D.	16	3	19	21	15.1
Wichita, Kans.	15.8	2	17.8	19.8	12.8
Bartlesville, Okla.	13.9	3	16.9	18.9	11.9

†Dumps of 100 or more gallons at 16c per gallon.
*Includes city tax of ½c.
††Includes city tax of 1c.

S. O. NEBRASKA

Crawford, Neb.	18	2	20	*	14.25
Omaha, Neb.	16.25	2	18.25	20.25	13.5
McCook	18.75	2	20.75	22.75	15
Norfolk	17.75	2	19.75	21.75	14
North Platte	18.75	2	20.75	22.75	14.75
Scottsbluff	18.25	2	20.25	22.25	14.25

*Standard has no service station here.

CONTINENTAL OIL

Denver, Colo.	18	2	20	20	16.5
Pueblo, Colo.	17	2	19	19	16.5
Casper, Wyo.	18	2½	20.5	22.5	15
Cheyenne, Wyo.	19	2½	21.5	23.5	16.5
Butte, Mont.	20	2	22	22	17
Helena, Mont.	22	2	24	26	18
Salt Lake City, Utah.	21.5	3½	25	27	18
Boise, Ida.	23	3	26	28	20
Albuquerque, N.M.	21.5	3	24.5	27.5	18.5

S. O. CALIFORNIA

Phoenix, Ariz.	22	3	25	28	21.5
Los Angeles, Cal.	14.5	2	16.5	20.5	15.5
Fresno, Cal.	16.5	2	18.5	22.5	17.5
San Francisco, Cal.	16	2	18	22	15.5
Reno, Nev.	19.5	4	23.5	27.5	19
Portland, Ore.	16	3	19	23	16.5
Seattle, Wash.	16	2	18	22	16.5
Spokane, Wash.	20	2	22	26	20.5
Tacoma, Wash.	16	2	18	22	16.5

S. O. LOUISIANA

Little Rock, Ark.	14.5	4	18.5	21.5	14.5
Alexandria, La.	14.5	2	16.5	19.5	14.5
Baton Rouge, La.	13.5	2	15.5	18.5	13
Lake Charles, La.	15	2	17	20	14.5
New Orleans, La.	*15	2	17	20	13.5
Shreveport, La.	13.5	2	15.5	18.5	13.5
Lafayette, La.	14.5	2	16.5	19.5	14
Bristol, Tenn.	18	3	21	24	16
Chattanooga, Tenn.	17.5	3	20.5	23.5	16
Knoxville, Tenn.	17.5	3	20.5	23.5	16.5
Nashville, Tenn.	16.5	3	19.5	22.5	16.5
Memphis, Tenn.	15.5	3	18.5	21.5	15.5

*Includes 1c city tax on gasoline and kerosene.

S. O. OHIO

	Gasoline T.W.	Tax	Total	S.S.	Oil T.W.
All Ohio points	19	2	21	23	15

MAGNOLIA PETROLEUM

Muskogee, Okla.	14	3	17	20	10
Oklahoma City	14	3	17	20	12
Tulsa, Okla.	14	3	†17	20	12
Fort Smith, Ark.	14.5	4	18.5	21.5	14.5
Little Rock, Ark.	14.5	4	18.5	21.5	14.5
Texarkana, Ark*	16.5	4	20.5	23.5	18
Dallas, Tex.	14	1	15	17	11
El Paso, Tex.	17	1	18	18	13
Fort Worth, Tex.	13	1	14	15	12
Houston, Tex.	15	1	16	18	12
San Antonio, Tex.	14	1	15	15	15

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city the 4c state tax applies.

†17c to regular power trade, 19c to all other tank wagon consumers. Bulk of gasoline sold in Tulsa by Independents is 1c higher than prices posted by Magnolia.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline)

	Oleum Spirits	V.M.&P. Naphtha	Cleaners Naphtha
Chicago	19	21	21
Detroit	20.2	22.7	22.7
Kansas City	19.2	21.2	21.2
Milwaukee	19.2	23.7*	23.7
Minneapolis	20.5	25*	25*
St. Louis	18.4	20.9	22.2
New York		19	

*Including state tax.

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

	Gasoline T.W.	Tax	Total	S.S.	Oil T.W.
ONTARIO					
Toronto	24.5	3	27.5	31	21.5
Ottawa	25.5	3	28.5	32	22.5
Cochrane	29.5	3	32.5	36	26
Ft. William	27.5	3	30.5	35	23.5
MANITOBA					
Winnipeg	27.5	3	30.5	34	23.5
SASKATCHEWAN					
Regina	29.5	0	29.5	34	25.5
ALBERTA					
Edmonton	31.5	2	33.5	37	27.5
Calgary	29.5	2	31.5	35	26.5
BRITISH COLUMBIA					
Vancouver	23	3	26	30	24.5
QUEBEC					
Montreal	24.5	3	27.5	31	20
Quebec City	26.5	3	29.5	33	22
Three Rivers	26.5	3	29.5	33	23.5
NEW BRUNSWICK					
St. John	27.5	3	30.5	35	26.5
Moncton	27.5	3	30.5	35	26.5
NOVA SCOTIA					
Halifax	27.5	3	30.5	35	24.5
Sydney	29.5	3	32.5	33	26.5
PRINCE EDWARD ISLAND					
Charlottetown	27.5	2	29.5	33	24.5

Note: In districts surrounding these points 1c additional is added to city price.

Export Markets Quiet; Most Prices Hold but Some Shading Done

By Special Correspondent
NEW YORK, April 19

EXPORT business was spasmodic and light most of last week. Rumors of an impending advance in New York export gasoline prices were persistent but failed to materialize. Inquiries were numerous enough but Europeans are slow in placing business. Unusually cold weather along the Atlantic seaboard tended to keep consumption down. Kerosene demand is better than usual for the season.

Pennsylvania cylinder stocks continued to sag and Pennsylvania 600 steam refined in barrels, New York, was freely offered at 22½ to 23 cents with rumors that 22 cents had been done. Bunker oil is weaker. Gas oil holds firm. Waxes are tending lower.

Export Gasoline—New York

There was an inquiry from the United Kingdom for 45,000 barrels of U. S. Motor gasoline and prime and water white kerosene for nearby shipment, but this is pending. Stocks of gasoline are fairly large but refiners are offering only for immediate shipment, feeling that prices will be appreciably higher after the first week of good weather. A French buyer was inquiring for a cargo of 40,000 barrels of U. S. Motor and 64-66 gravity gasoline, and prime white kerosene for May shipment and it is rumored that a leading Independent had booked this business.

At New York harbor refineries U. S. Motor is held at 13 cents a gallon in bulk. California gasoline in tankers f. o. b. New York is held at 13 cents a gallon with a possibility of doing 12¾ cents on a firm bid.

Cased gasoline was quiet most of last week. A Near Eastern buyer purchased 20,000 cases of U. S. Motor and 64-66 gravity for May shipment from a small Independent.

Export Gasoline—Gulf Ports

One of the leading Independents booked a cargo of 45,000 barrels of U. S. Motor and 64-66 gasoline, and prime white kerosene for May shipment to France at prices said to be 11¼, 14½, 7½ and 8½ cents, respectively. Another leading Independent booked a cargo of 35,000 barrels of U. S. Motor and 64-66 gravity for May shipment to the United Kingdom but prices were not divulged. A continental buyer was after 42,000 barrels of 61-63 gravity and 64-66 gasoline, but this failed to materialize.

Demand for cased gasoline was disappointing. A South American buyer purchased 15,000 cases of U. S. Motor and 64-66 gravity for May shipment and a Near Eastern buyer purchased 20,000 cases for nearby shipment.

Domestic Gasoline—New York

Domestic demand for gasoline has improved but abnormally cold weather curtailed consumption. Seaboard refiners were demanding 13 cents a gallon at refinery with rumors current that 12¾ cents could have been done on a firm bid. Jobbing demand has been better lately, but refiners are not offering far ahead. In tank cars delivered to the trade the price is 14 cents a gallon.

Domestic Gasoline—Gulf Ports

Demand from jobbers is gaining steadily. Weather conditions have been more favorable and consumption is increasing. U. S. Motor in tank cars is held at 11½ cents a gallon, while one report had it that on a firm bid 11¼ cents could have been done. Leading refiners are bullish in their ideas, as a rule, and are not offering far ahead.

Export Kerosene—New York

Export demand for kerosene was sluggish throughout the week, but prices did not undergo any marked change. Leading factors were quoting prime white in bulk, refinery, at 8¾ cents a gallon while water white was held at 9¼ cents. Europeans are showing little interest in prompt and nearby shipments as their current requirements are well taken care of. Refiners seem more anxious to move their stocks. Cased kerosene was dull and unchanged.

Export Kerosene—Gulf Ports

Export demand for kerosene was disappointing. Most leading factors were asking 7½ cents a gallon for prime white and 8½ cents a gallon for water white in bulk. Stocks of kerosene are fair. Cased kerosene demand is slightly better than a week ago, and prime white was firm at $1.75. Water white was held at $1.85 a case in cargo lots. A Chinese buyer is rumored to have purchased 35,000 cases at these prices for May shipment from the Gulf.

Domestic Kerosene

Owing to unusually cold weather along the Atlantic Seaboard, consumption of kerosene has been keeping up fairly well, and prices have been well maintained. However, jobbers are less inclined to purchase ahead and look for a break in prices with the first week of good weather. At New York harbor refineries water white was held at 9¼ cents a gallon and prime white at 8¾ cents. Kerosene delivered to the trade was 1 cent higher.

Gas Oil—New York

Gas oil business was not spirited, but the market was firm with 36-40 at 6 cents and 28-34 at 5½ cents, New York harbor refineries. No bulk export inquiries were reported. European buyers appeared disinterested in the domestic market at present. Large quantities of gas oil are being cracked and consequently refiners are not offering freely. Domestic consumption is better than expected.

Gas Oil—Gulf Ports

Although leading factors were quoting 26-28 transparent gas oil at 5 to 5¼ cents a gallon, and 32 plus dark oil at 4¾ to 5 cents, there was virtually nothing to be had at these prices. The best offering of 26-28 gravity was 5½ cents a gallon, and there were comparatively few sellers at this price. Export demand failed to show any improvement. Cracking is heavy and stocks are greatly reduced.

Waxes—New York

All departments of the paraffin wax market were dull. White crude scale is freely offered around at 5⅛ cents a pound for 122-124 A.m.p. and 124-126 A.m.p. but buyers are disinterested. Export buying has been negligible for some time, and sellers report few inquiries.

Fully refined waxes were weak. There were rumors that prices could have been shaded a trifle on a firm bid, but no actual reductions were heard of. Fully refined 120-122 A.m.p. was still held at 6 cents a pound. Yellow crude scale, 124-126 A.m.p. was available at 5 cents.

Waxes—Gulf Ports

The condition of the wax market remained unfavorable. Export demand is

Exports From Tampico District

Company	February	March
Transcontinental Petroleum Co., (Standard of New Jersey)	1,839,642	2,593,915
Pan American Eastern Oil Co.	2,276,380	2,810,275
Mexican Eagle Oil Co., (El Aguila)	612,556	1,068,782
Cia. Mexicana Holandesa "La Corona"	264,550	932,172
The Texas Co. of Mexico, S. A.	77,032	53,878
Mexican Gulf Oil Co.	875,347	264,498
Sinclair Mexican Companies	674,026	513,511
East Coast Oil Co. of Mexico, S. A., (Southern Pacific)	58,803	108,610
Panuco-Boston Oil Co.	51,680	59,097
Mexican Oil Products Co.	.....	61,375
Empire Gas & Fuel Co.	51,680	137,195
La Espuela Oil Co.	207,191	189,988
Pierce Oil Corp.	.....	4,503
Mexican Atlas Oil Co.	87,272	91,531
New England Fuel Oil Co.	85,778	.....
Totals	7,161,937	8,889,330

light, and the Catholic countries that usually buy large quantities are showing little or no interest. Prices remained weak and fully refined 125-127 A.m.p. was quoted at 5⅞ cents; 128-130 at 6 cents; 133-135 at 6⅜ cents, and 135-137 at 6¾ cents. For white crude scale 124-126 A.m.p. the price was 5⅛ cents while semi-refined 124-126 was held at 5.30 cents a pound.

Bunker Oil—New York

Demand for bunker oil was less active but prices were unchanged. The tendency is easier and stocks are larger than on April 1. All big refiners are still asking $1.75 a barrel, in bulk, f.o.b. New York harbor refineries, but business was mainly against standing contracts. Diesel oil was steady but dull at $2.30 a barrel, refinery.

Bunker Oil—Gulf Ports

Demand for grade C bunker oil is lighter and cargoes were offered at $1.45, with some factors asking $1.50 a barrel in cargo lots. For bunkering the asking price was $1.60 a barrel although it was rumored that this price was being shaded. At Tampico, for bunkering the asking price was $1.50 a barrel, including taxes, while in cargo lots the price was $1.40 a barrel, including taxes. Heavy Panuco crude oil was quoted at $1.18 per barrel, taxes to be added.

Lubricants—New York

Demand for lubricants was disappointing. Export buyers show little interest. Prices are sagging, particularly for cylinder stocks. Pennsylvania 600 steam refined in barrels, New York, was freely offered around at 22½ to 23 cents a gallon, but failed to attract much attention. For Pennsylvania D filtered 600, in barrels, New York, the price was 30 cents a gallon. Spindle oil was in slightly better demand at unchanged prices. Black oil is marking time.

Lubricants—Gulf Ports

Sellers reported a continued dearth of buying orders. Buying was strictly hand-to-mouth and it was persistently reported that prices for virtually all grades were susceptible to shading. A report had it that a United Kingdom buyer had purchased a cargo of 40,000 barrels of assorted lubricants for May shipment, but this lacked confirmation.

Petrolatums

The tendency is upward but no actual price revisions were reported. Snow white ranges from 11¼ to 11½ cents a pound. Export demand is slightly better. Amber and dark green are in better demand. Medicinal oils were quiet.

BOYNE CITY, MICH.—The General Oil Co. and Indian Trail Oil Co., with headquarters here, is opening new stations this year at Alba, Mancelona, Kalkaska, Alden, Bellaire, Torch Lake Bridge and Rapid City, Mich. They are operating bulk stations at Boyne City and Mancelona.

Complete Export Markets

New York Export Market

GASOLINE	April 19	April 12
U. S. Motor Tank cars Ref.	.13	-13
U. S. Motor cases	.28.40	-28.40
California grade U. S. Motor F. O. B. N. Y. Bulk	.12¾	-13
KEROSENE		
41-43-150 W. W. Tank cars Ref.	.09¼	-09¼
41-43-150 W. W. Cases	.19.40	-19.40
42-44-110 S. W. Cases	.18.15	-18.15
GAS OIL		
36-40, Bulk Refinery	-06	-06
28-34, Bulf Refinery	-05½	-05½
MEXICAN BUNKER OIL		
Grade C, f. o. b. ref. Bulk	1.75	- 1.75
Diesel Oil f. o. b. ref. Bulk	2.30	- 2.30

LUBRICATING OILS

The following prices are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS (Bbls.) 1 inch Immersion Test; All Penna. Products		
Filtered D 600	.30	-30½
Filtered E 600	.29	-29
Unfiltered 600 s. r.	.22½	-23
Unfiltered 650 s. r.	.29	-28
600 flash s. r.	.30	-30
630 Flash	.41	-41
RED PARAFFIN (Bbls.) (Viscosity at 70)		
300 vis. No. 5 color	21	-21
250 vis. No. 5 color	20	-20
High Viscosity No. 5 color	25	-25
NEUTRAL OILS (Bbls.) (Viscosity at 70)		
200 vis. at F. Pale. No. 3 color	-31	-31
180 Pale. No. 3 color	-29	-29
150 Pale. No. 3 color	-24½	-24½
BLACK OIL (Bbls.)		
25-30 cold test	.13	-13
15 cold test	.14¾	-14½

MEDICINAL OILS (Includes Price of Drums) (Penna. Stocks)

	April 19	April 12
Domestic 875-.885 s. g.	1.00-1.08	1.00-1.08
Domestic 865-.870 s. g.	.75- .80	.75- .80
Russian 885-.890 s. g. 325-350 vis.	1.20-1.25	1.20-1.25

WAXES (Penna. Stocks) (F. A. S. Carload Lots)

WHITE CRUDE SCALE		
122-124 A. m. p.	-05⅝	-05⅝
124-126 A. m. p.	-05⅝	-05⅝
MATCH		
105-108 A. m. p.	-06	-06
FULLY REFINED		
120-122 A. m. p.	-06	-06
123-125 A. m. p. Philadelphia	-06⅛	-06⅛
125-127 A. m. p.	-06⅛	-06⅛
128-130 A. m. p.	-06⅛	-06⅛
130-132 A. m. p.	-06⅛	-06⅛
133-135 A. m. p.	-06¾	-06¾
135-137 A. m. p.	.07 -07¼	-07¼
SEMI REFINED		
122-124 A. m. p.	-05⅝	-05⅝
YELLOW CRUDE SCALE		
124-126 A. m. p.	-05	-05¼

PETROLATUMS (Penna. Stocks) Per Pound

Dark Green	03	03
Veterinary	03¼	03¼
Light Amber	03¾	03¾
Dark Amber	03¾	03¾
Cream	06¾	06¾
Lily White	08½	08½
Snow White	11¼-11½	11¼-11½

Gulf Export Market

GASOLINE
F. O. B. Seaboard
Shipments of 20,000 Bbls. and over

	April 19	April 12
U. S. Motor, Cargo	11½-.11¾	11½-.11¾
60-62 400 e. p. Bulk	.13¼	-.13¼
64-66 375 e. p. Bulk	.14½	-.14½
U. S. Motor, Cases (cargo lots)	2.20	2.25
64-66, Cases (cargo lots)	2.40	2.40
KEROSENE		
Water White, 41-43 bulk	.08½	-08½
Prime White, 42-44 bulk	.07½	-07½
Water White, cases (cargo lots)	1.80	-1.80
Prime White, cases (cargo lots)	1.70	-1.70
DOMESTIC GAS AND BUNKER OIL		
26-28, gravity, bulk*	.05½	-05¼
32 plus, bulk, Dark	.05	-05
Grade C, Bunker oil	1.60	-1.60
Cargoes	1.45	1.45-1.60

*Transparent through neck of a 4 oz. bottle.

MEXICAN CRUDE AND BUNKER OILS
F. O. B. Steamer Tampico

Heavy, Taxes to be added	1.18	-1.18
Grade C, Bunker oil Taxes paid	1.45	-1.45
Grade C, Bunker oil F. A. S. New Orleans	1.60	-1.60

SOUTH TEXAS
(Viscosity at 100°F; cold test 0)
(Tanker, F. O. B. Houston)

LUBRICATING OILS	April 19	April 12
100 Vis. No. 2 Unfiltered Pale	07	07
150 Vis. No. 2½ Unfiltered Pale	09	09
200 Vis. No. 3 Unfiltered Pale	11	11
300 Vis. No. 3 Unfiltered Pale	13½	13½
500 Vis. No. 3½ Unfiltered Pale	14	14
200 Vis. No. 5½ Red Oil	11	11
300 Vis. No. 5½ Red Oil	12	12
500 Vis. No. 6 Red Oil	13	13
800 Vis. No. 6 Red Oil	16¼	16¼

Pacific Export Market

(Cargo lots quotations at seaboard, Los Angeles)

	April 19	April 12
Gasoline, U. S. Motor— 54°-56°	11 -11¼	11 -11¼
Gasoline, U. S. Motor— blends and special cuts	11¼-11½	11¼-12
Gas Oil, 24°—30°B. per bbl	$1.15	$1.15
Diesel Oil, 27°B—plus per bbl	$1.15	$1.15
Bunker Oil, 14°—18°B. per bbl	$1.00	$1.00
Fuel Oil, 14°—18°B. per bbl	$1.00	$1.00
Kerosene, W. W. 40°—42° B per gal., 125-150 flash test	.06 -07	.06 -07½
Cased Goods		
Gasoline, U. S. Motor	$2.55	$2.55
Kerosene, W. W. 38°—40° B per case, flash test 125-150	$1.50-1.55	$1.50-1.55

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being products made from Domestic (including California) and Mexican Crudes.

	April 19	April 12
U. S. Motor Gasoline, Tank Cars Delivered greater N. Y.	-14	-14
U. S. Motor Gasoline, Tank Cars Bayonne	-13	-13
Kerosene, 41-43 150 W. W. Tank Cars De'd greater N.Y.	-10¼	-.10¼
Grade C Bunker f.o.b. N.Y. Ref.	1.75	1.75
Diesel Oil f. o. b. Refinery	2.30	2.30
Gas Oil, 36-40, Bulk Refinery	-06	-06
Gas Oil 28-34 Bulk, Refinery	-05½	-05½

Crude Oil Prices All Fields

PRICES IN EFFECT, *April 19*

EASTERN FIELDS

Posted by Joseph Seep Purchasing Agency

Penna. Grade Oil in New York Transit Lines (Alleghany, N. Y. District)	$3.65
Bradford District Oil in National Transit Lines (Bradford District)	3.65
Penna. Grade Oil in National Transit Lines (Other Pennsylvania)	3.55
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania)	3.55
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)	3.50
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district)	3.30
Keister Grade in National Transit Lines (Butler Co.)	2.45
Gaines, Tioga Co. (Pa.)	2.95
Cabell Grade in Eureka Pipe Lines (West Virginia)	2.20
Corning Grade in Buckeye Pipe Lines (Ohio)	2.35
*Somerest Medium in Cumberland Pipe Lines (Kentucky)	2.30
*Somerset Light in Cumberland Pipe Lines (Kentucky)	2.45
Ragland Grade in Cumberland Pipe Lines (Kentucky)	1.15

*Somerset oil run prior to Oct. 1, 1923, takes price of 6 cents lower than above quotations.

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.

Wooster	$2.35	Illinois	$2.12
Lima	2.23	Plymouth	1.65
Waterloo	1.10	*Canadian Petrolia	2.63
Indiana	2.00	*Posted by Imperial Oil, Ltd.	
Princeton	2.12		

OKLAHOMA, KANSAS And NORTH TEXAS FIELDS

(Prices of Prairie Oil & Gas Co.)
(Prairie's prices apply in Oklahoma, Kansas, North and Central Texas)

28-28.9	$1.40	41-41.9	$2.44
29-29.9	1.48	42-42.9	2.52
30-30.9	1.56	43-43.9	2.60
31-31.9	1.64	44-44.9	2.68
32-32.9	1.72	45-45.9	2.76
33-33.9	1.80	46-46.9	2.84
34-34.9	1.88	47-47.9	2.92
35-35.9	1.96	48-48.9	3.00
36-36.9	2.04	49-49.9	3.08
37-37.9	2.12	50-50.9	3.16
38-38.9	2.20	51-51.9	3.24
39-39.9	2.28	52 and above	3.32
40-40.9	2.36		

The Texas Co. adopted same schedule as Prairie on Feb. 1.

Humble Oil & Refining Co. Prices

(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie and Moran crudes all in Texas.)

Effective Feb. 1, Humble posted same gravity and price schedule in all the above fields as that posted by Prairie, excepting that Humble is paying 8c less for each full degree below 28 gravity.

Magnolia Petroleum Co. Prices In Oklahoma, Kansas and North Texas

Effective Feb. 1, Magnolia posted same gravity and price schedule as Prairie, in all fields where it purchases on a gravity basis, excepting that it is paying $1.20 for all oil below 28 gravity.

Effective Feb. 1, Corsicana heavy was advanced to $1.15 per barrel.

NORTH LOUISIANA—ARKANSAS FIELDS

***Prices of the Standard Oil Co. of Louisiana**

Caddo, below 32	$1.85
" below 32-34.9	2.00
" 35-37.9	2.10
" 38 and above	2.20
Homer, below 31	1.60
" 31-32.9	1.75
" 33-34.9	1.85
" 35 and above	1.95
Haynesville, below 33	1.75
" 33 and above	1.85
El Dorado, below 33	1.75
" 33 and above	1.85
Bull Bayou, 32-34.9	1.70
" 35-37.9	1.85
" 38 and above	2.00
Smackover, below 24	1.00
" 24-24.9	1.25
" 25-25.9	1.30
" 26-26.9	1.35
" 27 and above	1.40
De Soto	2.05
Crichton	1.85
Bellevue	1.50
Cotton Valley	1.10
**Urania, La	1.30

*Same prices maintained by The Texas Co., Gulf Refining Co. of Louisiana and Louisiana Oil Refining Corp. All purchasers of Smackover have maintained since Feb. 1 and 2, the same gravity and price schedule as Standard. Gulf is paying 95c for Calion (East El Dorado Crude.)

**Posted by Louisiana Oil Refining Corp.

STEPHENS, ARKANSAS

Posted by Louisiana Oil Refining Corp., and Atlantic Oil Producing Co.

26 and above	$1.50	Below 26	$1.30

GULF COASTAL FIELDS

Posted by Humble Oil & Refining Co.

Grades A	$1.50	27-27.9	$1.40
Grades B:		28-28.9	1.45
Below 25	1.25	29-29.9	1.50
25-25.9	1.30	30 and above	1.55
26-26.9	1.35		

Humble is paying the above prices in Goose Creek, Hull, Liberty, West Columbia, Orange and Pierce Junction fields. All other Gulf Coastal crudes are classified as A grades only. Other major purchasers are The Texas Co., Gulf Production Co., Sun Oil Co., and Sinclair Crude Oil Purchasing Co.

ROCKY MOUNTAIN FIELDS

Prices of Ohio Oil Co. and Midwest Refining Co.

†Salt Creek 29-29.9	$1.48
Salt Creek 30-30.9	1.56
Salt Creek 31-31.9	1.64
Salt Creek 32-32.9	1.72
Salt Creek 33-33.9	1.80
Salt Creek 34-34.9	1.88
Salt Creek 35-35.9	1.96
Salt Creek 36-36.9	2.04
Salt Creek 37 and above	2.12
Elk Basin	2.15
Grass Creek light	2.15
Big Muddy	2.00
Lance Creek	2.15
Rock Creek	2.00
†Osage	2.15
†Cat Creek, Mont	2.15
Sunburst, Mont	1.15
†Hogback, N. Mex	2.20
Artesia, N. Mex	1.70

†Posted by Midwest Refining Co. Midwest also buys Grass Creek light, and Elk Basin.

The Texas Co. buys Salt Creek and Big Muddy crude.

CALIFORNIA

Standard Oil Co. of California

Santa Maria and Ventura Posted by *Union Oil Co.

Gravity	Signal Hill Huntington Beach	Ingle-wood Torrance	Newhall, McKittrick, Whittier La Habra	Kern River	Olinda-Brea Canon, Richfield	Athens-Rosecrans Dominguez	Monte-bello	Coyote Hills	Santa Fe Springs	Midway-Sunset Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria	Ventura
14-14.9	$ .85	$ .85	$ .85	$ .75	$ .85	.....	$ .85	$ .85	.....	$ .75	$ .75	$ .75	$ .75	$ .85	$ .85
15-15.9	.87	.87	.85	.75	.87	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
16-16.9	.90	.90	.85	.75	.90	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
17-17.9	.94	.94	.85	.75	.94	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
18-18.9	.98	.98	.86	.75	.98	.....	.86	.86	.....	.75	.75	.75	.75	.85	.85
19-19.9	1.04	1.04	.87	.75	1.04	.....	.87	.87	.....	.75	.75	.75	.75	.85	.85
20-20.9	1.10	1.10	.89	.....	1.10	.....	.89	.90	.....	.82	.82	.79	.78	.90	.90
21-21.9	1.16	1.16	.91	.....	1.16	.....	.91	.98	.....	.90	.90	.86	.81	.97	.97
22-22.9	1.22	1.22	.94	.....	1.22	.....	.94	1.06	.....	1.00	1.00	.93	.85	1.04	1.04
23-23.9	1.28	1.28	.....	.....	1.28	.....	.97	1.14	.....	1.11	1.11	1.00	.89	1.11	1.11
24-24.9	1.34	1.34	.....	.....	1.34	$1.34	1.01	1.22	1.02	1.22	1.22	1.07	.93	1.18	1.18
25-25.9	1.40	1.40	.....	.....	1.40	1.40	1.05	1.30	1.08	1.33	1.33	1.14	.97	1.25	1.25
26-26.9	1.46	1.46	.....	.....	1.46	1.46	1.09	1.38	1.16	1.44	1.44	1.21	1.01	1.32	1.32
27-27.9	1.52	1.52	.....	.....	1.52	1.52	1.13	1.46	1.24	1.55	1.55	1.28	1.05	1.39	1.39
28-28.9	1.58	1.58	.....	.....	1.58	1.58	1.17	1.54	1.32	1.66	1.66	1.35	.....	1.46	1.46
29-29.9	1.64	.....	.....	.....	1.64	1.64	1.21	1.62	1.40	1.77	1.77	1.42	.....	1.53	1.53
30-30.9	1.70	.....	.....	.....	1.70	1.70	1.25	1.70	1.48	1.88	1.88	1.49	.....	1.60	1.60
31-31.9	1.76	.....	.....	.....	.....	1.76	.....	.....	1.60	1.99	1.99	1.56	.....	.....	1.67
32-32.9	1.84	.....	.....	.....	.....	1.84	.....	.....	1.72	2.10	2.10	1.63	.....	.....	1.73
33-33.9	.....	.....	.....	.....	.....	1.92	.....	.....	1.84	2.21	2.21	1.70	.....	.....	1.79
34-34.9	.....	.....	.....	.....	.....	2.00	.....	.....	1.96	.....	2.32	1.77	.....	.....	1.85
35-35.9	.....	.....	.....	.....	.....	2.08	.....	.....	2.08	.....	.....	1.84	.....	.....	1.92
36-36.9	.....	.....	.....	.....	.....	2.16	.....	.....	2.16	.....	.....	.....	.....		
37-37.9	.....	.....	.....	.....	.....	2.24	.....	.....	2.24	.....	.....	.....	.....		
38-38.9	.....	.....	.....	.....	.....	2.34	.....	.....	2.34	.....	.....	.....	.....		
39-39.9	.....	.....	.....	.....	.....	2.44	.....	.....	2.44	.....	.....	.....	.....		
40-40.9	.....	.....	.....	.....	.....	2.54	.....	.....	.....	.....	.....	.....	.....		
41-41.9	.....	.....	.....	.....	.....	2.64	.....	.....	.....	.....	.....	.....	.....		
42-42.9	.....	.....	.....	.....	.....	2.74	.....	.....	.....	.....	.....	.....	.....		

*Union Oil Co. also purchases Long Beach crude and is maintaining the same gravity and price schedule in that field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Dominguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees; and in Santa Fe Springs, on gravities ranging from 20 to and including 23.9 degrees.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

		April 19	April 12
Soda Ash light 58% bags	cwt.	–$1.38	–$1.38
Silicate of Soda 60 deg. drums	cwt.	– 1.65	– 1.65
Sal Soda wks	1.10–	1.25	1.10– 1.25
Caustic Soda 70% solid	cwt.	– 3.10	– 3.10
Chloride of Lime tank cars works	cwt.	– 2.00	– 2.00
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point	per ton	–10.00	–10.00
Liquid Chlorine tank cars works	lb.	– .04	– .04

Compounders' Supplies (Open Market)

Vegetable Oils—			
Linseed carloads spot	lb.	10.7	10.7
April		10.7	10.7
Tanks, spot		9.8	9.8
Boiled carloads spot	lb.	10.8	10.8
*Soya Bean spot, Bbls	lb.	13½	13½
Animal Oils—			
English Degras	lb.	.05½	–.05½
Domestic Degras, bbls., carloads	lb.	–.04¾	–.04¾
*Horse	lb.	–.09½	–.09½
Oleic Acid—			
Dist. Bbls	lb.	.10¼–.11	.10¼–.11
Saponified Bbls	lb.	.11 –.11¼	.11 –.11¼
Castor Oil—			
No. 1 Carlots, Bbls		–.13¼	–.13¼
No. 3 Carlots, Bbls		–.12¾	–.13
Lard Oils—			
Prime			
Winter Strained. to 1½ffa.40/45c.t.	lb.	.16⅞	.17¼
Extra			
Winter Strained. 2 to 4½ffa.40/45c.t.	lb.	.13½	.13½
Extra..... 4 to 5 ffa.40/45c.t.	lb.	.13	.13
Extra No.1 7 to 10 ffa.40/50c.t.	lb.	.12¾	.12¾
No. 1.....15 to 18 ffa.40/45c.t.	lb.	.12½	.12½
No. 2.....22 to 23 ffa.40/45c.t.	lb.	.12¼	.12¼
Prime Edible Tallow under 1⅞ffa. 40/45c.t.N.Y	lb.	–.09½	–.09¾
Tallow acidless	lb.	–.12½	–.12½
Lard Stearine	lb.	nominal	nominal
Oleo Stearine	lb.	–.11¼	–.11½
Neatsfoot Oil—			
Pure	bbls.-lb.	.16¾	.16¾
Extra do	lb.	.12¾	.12¾
No. 1	bbls.-lb.	.12½	.12½
Cold pressed	lb.	–20½	.20
Fish Oils—			
Menhaden Oil			
Light pressed	gal.	–.65	–.65
White	gal.	–.67	–.67
Yellow bleached	gal.	–.70	–.70
*Herring tank cars coast	gal.	–.50	–.50
Whale, extra winter bleached	gal.	–.82	–.82
Seal	gal.		Nominal
Naval Stores—			
Turpentine, N. Y	gal.	.96	.98½
Turpentine†	gal.	.90	.92
Rosin, B. N. Y	bbl.	8.50	9.60
Rosin, F. N. Y	bbl.	12.35	13.40
Rosin, B†	bbl.	8.00	8.10
Rosin, F†	bbl.	10.00	11.00
Rosin Oil 1st run	gal.	.55	.55
Rosin Oil 2nd run	gal.	.60	.60
Pine Tar—			
Kiln Burnt	bbl.	15.00	15.00
Retort	bbl.	15.00	16.00
Alcohol—Denatured			
Formula 5			
Bbls	gal.	–31	–31
Drums	gal.	–27	–27

†Savannah, Ga. market.
*Nominal.

Sulfuric and Caustic Soda Demand More Active

By Special Correspondent

NEW YORK, April 19.—Following is a review of the markets for oils and supplies used in compounding and refining:

Alcohol slightly easier. Demand lagging, but production lighter. Big buyers showing little interest.

Animal Oils steady. Demand for horse oil less active. Market easier at 9½ cents. Pure neatsfoot oil demand trifle better. More interest in oleo stearine. Tallow oil marking time. Oleo oil dull. Prime lard oil demand better. Domestic degras quiet, steady, 4¾ cents. Oleo stearine demand fair.

Linseed Oil quiet. Big demand from paint makers failed to materialize. Stocks moderate. Prices, steady. Buying largely hand-to-mouth. Linoleum makers buying cautiously. More interest in soya bean oil.

Fish Oils quiet. Crude menhaden oil nominal. Little or nothing offered. Light pressed in better demand 65 cents, gallon, barrels, spot. Yellow bleached marking time. White bleached steady but quiet. Whale Oil dull but steady.

Sulfuric Acid demand slightly more active. Better inquiry for forward shipments. Stocks moderate. Prices firm.

Sal Soda quiet and a shade easier. Buying strictly hand-to-mouth. Little interest in futures.

Naval Stores demand fair. Buying in turpentine confined to small quantities but aggregate movement larger. Rosins weak. Export buying has slumped while domestic buying is lighter. Stocks large. Big consumers holding off pending further cuts. Rosin oils quiet, steady. Tar and pitch in slightly better demand.

Soda Ash moving in fair way against contracts. New business negligible. Prices steady.

Caustic Soda demand slightly better, but little interest shown in futures. New business hand-to-mouth. Prices unchanged.

New Handbook Has 23,000 Oil Freight Rates

CLEVELAND, April 17.—Howard B. Peterman, 1341 E. 112 St., **Cleveland,** former assistant traffic manager of the National Petroleum Association, has compiled a handbook of 23,000 petroleum freight rates from Mid-Continent, eastern and Atlantic coast points of origin to 450 points of destination.

The handbook is an elaboration of freight rate sheets previously compiled and published by Mr. Peterman and which have been used for two or three years by shippers and buyers of petroleum products in the Mid-Continent and northeastern quarter of the United States.

There are 52 groupings of points of origin, such as Group 2, Group 3, and the various Texas groupings. The rates are shown in cents per hundred pounds of oils and an appendix gives the rates reduced to cents per gallon.

The book is designed for quick reference. All rates published have been corrected as of April 1, 1926.

TULSA,—The, Kanotex Refining Co. Arkansas City, Ark. will install the Gray vapor phase treating process.

Motor Benzol Stronger

NEW YORK, April 19.—Motor Benzol is stronger than it was a week ago. The Barrett Co., is quoting 24 cents a gallons in tank cars at the ovens but virtually nothing is available for spot delivery. Export demand has also shown improvement but marketers are not in a position to book export business.

Production of motor benzol is falling and with gasoline on the upward swing it is likely that higher benzol prices will prevail during the warmer months. The larger motor fuel mixture interests are fairly well covered by contracts but there are still many big buyers who are after summer supplies.

The Barrett Co. prices are:

	Tank Cars	Drums
Motor benzol, ovens	24c	..
Commercially pure benzol	24	29
Commercial 90% benzol	..24	29
Commercially pure toluol	..35	40
Commercial xylol	.36	41
Solvent naphtha	.35	40

Eastern and Central Kentucky Markets

LEXINGTON and ASHLAND, April 19.—All grades of gasoline in Eastern Kentucky markets have advanced ¼ cent per gal. 60-62 grade in Central Kentucky is down ½ cent and kerosene is firmer at 9 cents. Prices are:

	Eastern Kentucky	Central Kentucky
58-60 gasoline	13	12
60-62 gasoline	13½	12½
64-66 gasoline	14¼	13½
68-70 gasoline, 350-360 e.p.	15	14½
24-26 fuel oil	5⅛	....
41-43 w.w. kerosene	....	9
Gas oil	6¼	5¾

OIL STOCKS AND FINANCES

National Petroleum News

S. Penn Oil Co. Nets More Than In Any Year Since 1920

PITTSBURGH, April 17.—Net income of the South Penn Oil Co. was better in 1925 than in any year since 1920. After all charges and reserves the South Penn last year netted $2,375,330, equivalent to $11.88 a share on the $100 stock. Net earnings in 1924 were equivalent to $7.63 a share.

The balance sheet as of Dec. 31 shows a decrease of approximately $4,000,000 or 20 per cent in inventories last year. Other changes and adjustments shown in the balance sheet are explained as follows by S. G. Hartman, treasurer of the company:

"A comparison of the statements issued by your company for the years 1924 and 1925 shows an increase of surplus of $11,672,453.82 after establishing a contingent loss account of $1,500,000. This increase is due to the restoration of excessive depreciation and depletion charged off prior to 1925, amounting, after allowance for the contingent loss reserve, to $9,597,123, and in addition the undistributed earnings for the year amounting to $2,075,330.

"In 1919 a restoration of excessive depreciation was made, but due to the long history of the company, and its great number of properties, it was possible at that time to make but a conservative estimate of the amount that should be restored, and it was not until the beginning of 1925 that proper depletion and depreciation units for each individual property could be determined.

"Because of this the old excessive units were used until the new ones were properly determined. With the beginning of 1925 the unit was used that was determined upon after a study by our engineers and accountants of the history of each individual property from the date of its acquisition to the present time. As a result the 1925 statement, hereto attached, showing a surplus of $24,141,830, reflects a very accurate value of the company's properties, and the year's earnings of $2,375,330 shows the earnings without addition or subtraction for adjustment of prior years."

South Penn Oil Co. Income Accounts

	1925	1924	1923	1922	1921
Gross earnings	$14,885,601	$13,508,804	$13,435,658	$13,363,425	$15,183,827
Expenses, taxes, deplet., deprec.	12,510,271	11,981,336	14,374,643	14,628,762	14,779,175
Net income	$ 2,375,330	$ 1,527,468	*$ 938,985	*$1,265,337	$ 404,652
Dividends	300,000	.....	.....	900,000	2,600,000
Surplus	$ 2,075,330	$ 1,527,468	†$ 938,985	†$2,165,337	†$ 2,195,348

*Loss. †Deficit.

South Penn Oil Co. Balance Sheets as of Dec. 31

	1925	1924	1923	1922	1921
ASSETS					
Property account	$21,562,066	$ 8,258,992	$10,008,432	$12,660,168	$14,215,837
Cash, acc'ts. rec.	4,806,793	4,844,728	5,473,527	5,270,056	5,549,450
Inventories	12,754,096	16,702,422	16,170,718	14,023,609	11,530,899
Notes rec.	8,966,519	8,855,819	8,359,493	7,912,034	8,409,429
Deferred charges	46,666	186,900	107,551	153,280	146,162
Total	$48,136,141	$38,848,861	$40,119,721	$40,019,147	$39,851,777
LIABILITIES					
Capital stock	$20,000,000	$20,000,000	$20,000,000	$20,000,000	$20,000,000
Accounts payable	2,235,312	6,299,237	9,097,528	8,058,572	5,691,333
Tax reserve	259,000	80,248	80,285	79,682	114,214
Contingent reserve	1,500,000	.....	.....	.....	.....
Surplus	24,141,829	12,469,396	10,941,908	11,880,893	14,046,230
Total	$48,136,141	$38,848,861	$40,119,721	$40,019,147	$39,851,777

Union Tank Car Income Lower in 1925

CLEVELAND, April 17.—Profits of Union Tank Car Co. were lower in 1924 than in 1925, amounting to $2,715,607 after depreciation, taxes and other reserves as compared with $3,229,870 in 1924. The 1925 profits after dividend requirements on the 7 per cent preferred stock was equivalent to $7.63 per $100 share on $24,564,400 common outstanding at the end of the year. The 1924 net income was equivalent to $13.19 per share on $18,115,000 common stock outstanding at the end of that year. The company on Dec. 10, 1925, paid a 33⅓ per cent dividend in stock on the common.

Income accounts of Union Tank car for the last year compare:

	1925	1924
Net earnings	$ 6,613,297	$ 7,223,926
Depreciation	3,444,899	3,401,368
Reserves	452,790	592,688
Net profits	$ 2,715,608	$ 3,299,870
Dividends	1,750,370	1,741,125
Surplus	$ 965,238	$ 1,488,745

Balance sheets of Union Tank Car as of Dec. 31, compare:

	1925	1924
ASSETS		
Equipment*	$40,028,495	$43,254,649
Shops, material	2,112,101	1,336,000
Office furniture	20,302	21,789
Cash, securities	3,044,928	3,486,393
Accounts receivable	1,331,018	1,328,409
Total	$46,536,844	$49,427,241
LIABILITIES		
Preferred stock	$12,000,000	$12,000,000
Common stock	24,564,400	18,115,000
Car trust notes	.....	4,000,000
Accounts payable	483,300	613,638
Reserves	872,968	906,566
Surplus	8,616,176	13,792,037
Total	$46,536,844	$49,427,241

*Less depreciation.

Gilliland Oil Co.—Company on April 2 made payment of $640,460 to sinking fund and interest, reducing amount of bonded indebtedness to $3,950,775 compared with $6,274,500 at the time of receivership. Although company's working capital has been limited, crude and natural gasoline production has been increased. Gross income is said to be about $250,000 a month.

General To Retire Senior Stock in Merger

NEW YORK, April 17.—General Petroleum Corp. will retire its preferred stock as part of the General-Standard Oil Co. of New York merger. There was $3,207,700 of this stock outstanding on Feb. 11, of $25 per share par value.

Special meeting of Standard stockholders has been called for May 17 to vote on plan to merge with General and to increase the capital stock from 15,000,000 to 17,500,000 shares to provide for exchange with General stockholders. The new Standard stock would be of $25 per share par value like the present stock and the total authorized capital would amount to $437,500,000. The exchange with General holders will require 2,355,000 shares of Standard stock, Herbert L. Pratt, president of Standard, stated this week.

Mr. Pratt also announced that the personnel of the General would be taken over with all of the company's assets except an amount sufficient to retire the General's preferred stock at par and accrued dividends.

Transactions In Oil Shares on New York Stock Exchange

1925 High	1925 Low	1926 High	1926 Low		Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended April 17 Sales	First	High	Low	Last	Ch'ge
.....	.....	26¾	24⅞	(sh)	713,000	N.P.	Amerada Corp.	40cQ	Apr. 30, 26	2,600	26	26⅜	25¾	26	— ⅛
70¾	48	74	65	(sh)	200,000	N.P.	American Republics	.....	.....	400	64¾	64¾	64¾	64¾	—3⅛
47¾	32	59½	44¾	$	56,000,000	$25	Associated Oil	50cQ	Apr. 26, 26	1,000	48	48¾	47½	48	0
117½	95½	111¾	97		50,000,000	100	Atlantic Refining	.....	June 16, 24	14,700	108	*111¾	106¾	106¾	— ¾
117¾	113½	117½	115⅝		20,000,000	100	do pfd	$1¾Q	Feb. 1, 26	100	x116	x116	x116	x116	+2⅛
33½	18¾	33½	24⅛		18,428,350	25	Barnsdall Corp. A	50cQ	Apr. 2, 26	4,900	26½	26½	24½	25½	—1¾
30	16	29½	25¼		3,713,275	25	do B	50cQ	Apr. 2, 26	1,000	24½	24½	†23¼	23¾	—1½
34¾	23⅜	33⅛	30¾	$	44,923,000	$25	California Petroleum	50cQ	Mar. 1, 26	16,100	33¾	33⅞	32½	32¾	— ¾
70	42½	73	50		19,834,300	100	General Asphalt	.....	.....	47,200	59¾	61¾	56¼	60½	+ ¾
109	86½	114¾	94¾		7,416,000	100	do pfd	$1¾Q	Mar. 1, 26	700	101	101	100¼	101	0
59⅝	42	65¾	49½		29,225,650	25	General Petroleum	75cQ	Mar. 15, 26	25,000	59¼	59⅜	57⅞	58¾	—1⅛
85	59	72	50¼		25,000,000	100	Houston Oil	.....	.....	3,200	55	55	51⅞	53½	—2⅜
41¾	13½	34	19¾	(sh)	500,000	N.P.	Independent Oil & Gas	25cQ	Apr. 12, 26	15,700	22	23½	21⅜	22¼	— ¾
14¼	5½	13¾	9	$	3,204,590	$10	Indian Refining	.....	Dec. 15, 20	1,300	9½	9½	9	9⅛	— ¼
12⅜	6	12⅜	8		4,545,860	10	do ctfs	.....	.....	1,000	8¾	8¾	† 8	8	—1½
110	77	104	90¾		2,296,400	100	do pfd	.....	Dec. 15, 21	.....	.....	.....	.....	.....	.....
1½	¾	¾	¾		1,678,760	10	Kansas & Gulf	.....	.....	100	⅜	⅜	¾	¾	+⅛
25¾	13⅝	19⅜	12	(sh)	1,121,550	N.P.	Louisiana Oil	.....	.....	8,800	14	14	13⅛	13⅜	—1½
35½	20¾	28⅞	20¾	(sh)	350,000	N.P.	Maracaibo Oil	.....	.....	3,100	22½	22½	20¾	21¾	—1
60⅜	32⅝	60¾	49¼	(sh)	1,894,518	N.P.	Marland Oil Co	$1Q	Mar. 31, 26	40,600	53	53	50⅞	51⅞	—1¼
250	225	.....	.....	$	45,942,800	$100	Mexican Petroleum	$3Q	Apr. 20, 26	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....		12,000,000	100	do pfd	$2Q	Apr. 20, 26	.....	.....	.....	.....	.....	.....
22½	29	12¾	6	(sh)	943,939	N.P.	Mexican Seaboard	.....	Nov. 15, 24	6,100	9¾	9½	8	8¼	—1
38	25¾	37	28	(sh)	1,337,800	N.P.	Mid-Continent Petroleum	.....	Aug. 1, 23	.....	.....	.....	.....	.....	.....
94¾	83	97	90	$	6,718,000	$100	do pfd	$1¾Q	Mar. 1, 26	.....	.....	.....	.....	.....	.....
3¾	¾	2½	1¾		26,013,760	10	Middle States	.....	July 1, 23	2,600	1¾	1¾	1½	1½	0
1½	1½	1¾	¾		5,786,460	....	do ctfs	.....	.....	500	1	1	⅛	1	0
78½	51¾	83¾	51¾	(sh)	3,500,000	N.P.	Pacific Oil	$1.50S.A.	Jan. 20, 26	32,900	54⅝	54⅝	52⅞	54⅛	— ⅜
83⅞	59½	78½	56⅜	$	48,307,400	$50	Pan American P. & T.	$1.50Q	Apr. 20, 26	3,180	63¼	63¼	60¼	61¾	— ⅛
84½	60¾	78¾	56⅞		90,484,800	50	do B	$1.50Q	Apr. 20, 26	36,800	64¼	64¼	61	63¾	+ ½
49¾	37½	46	34	(sh)	400,000	N.P.	Pan American Western B	50cQ	Apr. 30, 26	10,200	38	39⅜	37	37½	— ⅜
6¾	2¾	11¾	4½	(sh)	198,770	N.P.	Panhandle P. & R	.....	.....	5,300	9	9½	8⅛	8⅛	— ⅜
60½	37	85	51	$	2,935,200	$100	do pfd	.....	July 2, 23	200	73	73	71	71	—3¾
47⅛	36¾	48⅝	40	(sh)	2,045,381	N.P.	Phillips Petroleum	75cQ	Apr. 1, 26	33,600	42⅞	44	41¾	42⅜	— ⅜
3½	1¾	1¾	1	$	29,622,925	$25	Pierce Oil Corp	.....	.....	2,100	1⅝	1¾	1⅝	1¾	+ ⅛
40	20¾	27⅜	20½		15,000,000	100	do pfd	.....	Feb. 1, 22	100	21⅜	21⅜	21⅜	21⅜	+ ⅜
8¼	4½	7	4⅜	(sh)	2,500,000	N.P.	Pierce Petroleum	.....	.....	4,200	4½	4½	4⅜	4½	0
32⅝	12¾	17½	11	$	11,467,850	$50	Producers & Refiners	.....	Sept. 15, 23	1,500	12½	12½	11⅝	11⅞	—1⅛
47⅛	27	35	31		2,845,350	50	do pfd	.....	May 1, 25	300	32½	32½	32½	32½	+ ⅛
33¾	25⅛	31	25⅜		75,959,250	25	Pure Oil Co	37½cQ	Mar. 1, 26	9,200	26	26¾	†25⅜	25¾	— ⅜
108½	103	111¾	106		13,000,000	100	do 8% pfd	$2Q	Apr. 1, 26	400	106½	106½	†106	106	—2
57⅜	48⅛	57⅜	50	(sh)	773,885	13.40	Royal Dutch, N. Y. shares	$1.339	Jan. 29, 26	2,700	51¾	51¾	51¾	51½	— ½
49	39½	48⅜	42¾	(sh)	93,599	£2	Shell Transport & T	96¾e	Jan. 22, 26	.....	.....	.....	.....	.....	.....
23⅜	21⅛	23⅝	24	(sh)	10,000,000	N.P.	Shell Union Oil	35cQ	Mar. 31, 26	10,400	25½	25½	24	25	— ⅛
106½	99½	106⅜	103	$	20,000,000	$100	do pfd	$1½Q	Feb. 15, 26	300	103⅞	104	103⅞	104	+ ¼
28½	17¾	28⅝	19¾		7,207,620	10	Simms Petroleum	50cS.A.	Jan. 2, 26	12,000	21¾	21¾	20⅝	20¾	—1
24⅞	17	24⅞	19⅜	(sh)	4,489,320	N.P.	Sinclair Consolidated	.....	May 31, 24	50,200	20⅞	20⅞	†19⅜	19¾	—1⅛
94⅜	78¾	95	90	$	17,852,200	$100	do pfd	$2Q	Feb. 15, 26	400	91¾	93⅝	91¾	93¾	+ ¼
32½	21¾	32⅞	26⅝		23,024,590	25	Skelly Oil Co	50cQ	Mar. 15, 26	25,400	30¾	30¾	29¾	30½	— ⅛
67¼	51½	62¾	52½		237,610,350	25	S. O. California	50cQ	Mar. 15, 26	15,100	54¾	54⅝	52⅞	54	— ½
47½	38⅜	46⅜	40½		513,456,025	25	S. O. New Jersey	25cQ	Mar 15, 26	34,000	42⅝	42¾	40⅞	41¾	— ½
119	116¼	118¾	116¼		199,972,900	100	do pfd	$1¾Q	Mar. 15, 26	3,100	117½	117¾	117⅛	117½	0
43⅞	38⅛	41⅜	30⅜	(sh)	1,103,776	N.P.	Sun Oil	25cQ	Mar. 15, 26	1,900	33⅛	33⅛	30¾	31½	—1½
6⅜	2	4¾	2¼	(sh)	1,121,368	N.P.	Superior Oil Corp	.....	Dec. 20, 20	3,600	2½	2½	† 2¼	2⅜	0
55	42¾	54	48	$	164,450,000	$25	The Texas Co	75cQ	Mar. 31, 26	11,600	50⅝	50⅝	49½	50	— ⅜
23⅜	10⅜	19½	12⅜		8,380,340	10	Texas Pacific Coal & Oil	.....	June 30, 23	6,600	13½	13½	12½	13	— ½
36⅞	30¾	39¼	30¼	(sh)	2,018,231	N.P.	Tide Water Oil Co	37½e	Mar. 31, 26	1,400	31	31	30¼	30½	— ⅛
101	99	103	90	$	25,042,000	$100	do 6% pfd	$1.25Q	Feb. 15, 26	300	93⅞	93⅞	93	93	— ⅛
5⅞	3½	4¾	3	(sh)	3,742,029	N.P.	Transcontinental Oil	.....	.....	56,200	3½	3¾	3¼	3¾	+ ½
43⅛	33	49¾	37¼	$	40,480,800	$25	Union Oil of California	50cQ	Feb. 10, 26	23,300	42⅛	43	41⅜	42⅜	+ ⅛
134	96¾	94	80		24,428,300	100	Union Tank Car Co	$1¾Q	Mar. 1, 26	3,200	88½	89	86½	87	—2
117⅜	113¼	116½	113¾		12,000,000	100	do pfd	$1¾Q	Mar. 1, 26	100	115¼	115¼	115⅛	115⅛	— ⅜
31¾	25½	29.4	25¾	(sh)	490,000	N.P.	White Eagle Oil & Refining	50cQ	Apr. 20, 26	2,700	26½	26½	25¾	25⅞	— ⅛

*New High †New Low xEx-dividend Total Sales 601,180

Pittsburgh Stock Exchange

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended April 16 Sales	First	High	Low	Last	Ch'ge
8¼	5¼	7	5¾	$10	Arkansas Nat. Gas	1,460	6	6	5¾	5⅞	— ⅛
73¼	69¼	.....	.....	N.P.	Columbia Gas	.....	.....	.....	.....	.....	.....
18	14½	17	14	$10	Devonian Oil	115	14	14	14	14	— ¼
112¾	105½	114	112	$100	Duquesne Lt. 7s pfd	15	113	113	113	113	0
95	90	.....	.....	100	Fayette County Gas	.....	.....	.....	.....	.....	.....
.....	.....	10	5½	....	HoustonGulfGas(w.i.)	3,750	6½	7	†5½	5½	—1
55	32¾	56½	49½	25	Lone Star Gas	.....	.....	.....	.....	.....	.....
.....	.....	33½	30	....	do new (w.i.)	1,378	33	33½	32¼	32½	— ½
7	3¾	6½	6	....	do Rights	.....	.....	.....	.....	.....	.....
37¼	31	36½	33¾	25	Ohio Fuel Corp	2,970	34¼	34¼	33⅞	34	— ⅜
34	26	34	28	25	Oklahoma Nat. Gas	936	30	30	29¾	29¾	— ½
8¾	5	5¾	4¼	5	Pittsburgh O. & G	.....	.....	.....	.....	.....	.....
9⅜	6	10	8	10	Salt Creek Cons	110	8½	8½	†8	8	— ½
13¾	8½	10	8½	10	Tidal Osage	.....	.....	.....	.....	.....	.....

Pittsburgh Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended April 16 Sales	First	High	Low	Last	Ch'ge
20	18½	.....	.....	....	Central Ky. Gas	.....	.....	.....	.....	.....	.....
2½	.60	3¾	2¼	$ 5	Colombia Synd	.....	.....	.....	.....	.....	.....
.60	.15	15	15	5	Duquesne Oil	.....	.....	.....	.....	.....	.....
9	5½	.....	.....	10	Forest Oil	.....	.....	.....	.....	.....	.....
92¾	64	91½	85	25	Gulf Oil Corp	.....	.....	.....	.....	.....	.....
.....	.....	10	6½	....	Houston Gulf Gas	.....	.....	.....	.....	.....	.....
12½	3¼	12	9¾	N.P.	Leonard Oil & Dvlp	.....	.....	.....	.....	.....	.....
2¾	1⅜	.....	.....	1	Oklahoma Eastern	.....	.....	.....	.....	.....	.....
¾	⅜	.....	.....	....	Okla. Eastern rts	.....	.....	.....	.....	.....	.....
1⅞	1⅞	.....	.....	....	Okla. Eastern ex-rts	.....	.....	.....	.....	.....	.....
.47	.20	.20	.15	10	Omar O. & G	.....	.....	.....	.....	.....	.....
.....	.....	2	1¾	....	Pittsburgh Oil Dev	300	2	2	2	2	0
27½	25	33	26	10	Plymouth Oil	425	27	27½	†26	27½	0
7	3	5⅜	3	5	States Oil	.....	.....	.....	.....	.....	.....
4	1⅜	3⅛	2⅛	$ 1	Texon Oil & Land	6,500	2⅛	2⅛	2⅛	2⅛	— ⅛
11	9	9½	9¼	10	Tidal Osage	.....	.....	.....	.....	.....	.....
.....	.....	42⅜	41	N.P.	Waverly Oil Wks. A	.....	.....	.....	.....	.....	.....

*New High ‡New Low xEx Dividend

NEW YORK BONDS

Week Ending Apr. 16

	High	Low	Last	Ch'ge
Amer. Rep. Cor. Deb. 6s	99⅜	99¼	99¼	0
Associated Oil gold 6s	103	102¾	102¾	— ⅛
Atlantic Refg. deb 5s	101⅛	101	101	0
Barnsdall Corp. 6s	99	97½	99	+1
Calif. Petrol sf 6½s	104	103½	103½	— ⅜
Empire Gas & F 7½s	103	101⅞	102	— ¼
Empire Gas & F 6½s	97¾	97⅛	97⅜	0
Gen. Asphalt 6s	105¼	105	105	—1⅛
Humble Oil & R 5½s	102½	102	102¼	— ¼
Mid-Cont. Pet. 6½s	103⅜	102¾	102⅞	— ⅛
Pan-Amer. P. & T. 7s	105½	105	105½	0
Pan-Amer. P. & T. 6s	106¼	104⅝	105¼	— ¼
Pierce Oil deb. 8s	106	106	106	— ⅜
Producers & Refnrs. 8s	110½	110¼	110½	— ¼
Sinclair Con. Oil col. 7s	96	95⅜	95½	— ⅛
SinclairCon.Oilcon.6½s	90¼	89⅞	89⅞	+ ¼
Sinclair Con. Oil 6s	107	105½	105½	—1½
Sinclair Crude Oil 6s	100¾	100½	100¾	0
Sinclair Pipe Line sf 5s	90	89¾	89¾	+ ¼
Skelly Oil 6½s	123¼	120¼	122	— ½
Superior Oil 7s	95½	95½	95½	+ ½
Union Oil of Calif 6s-A	104¾	104¼	104¼	— ⅜
Union Oil of Calif 5s-B	100⅜	100¼	100¼	—1⅛
Union Oil of Calif 5s-C	96¾	96	96	— ¼

NEW YORK CURB BONDS

Week Ending Apr. 16

	High	Low	Last	Ch'ge
Atl. Gulf & W I 5s '59	68½	67	67	— ⅛
Cities Service 6s '44	92¼	91¾	91⅞	— ⅜
Cities Service 6s new	92¼	91¾	91⅞	0
CitiesService7s"C"'66	129⅞	127⅜	129	+1¾
CitiesService7s"D"'66	103¼	102½	103	+ ½
Galena S O 7s	102¼	102¼	102¼	— ¼
General Pet. 6s '28	101⅝	101⅜	101½	+ ⅛
General Pet. 5s '40	98½	97	98⅜	+2⅛
Gulf Oil 5s '37	100¼	100	100¼	0
Gulf Oil 5½s '28	101⅛	101⅛	101⅛	0
Independ Oil 6½s '31	96¼	96	96¼	— ¼
Pan Amer Pet. 6s '40	100¾	100	100½	+ ¾
Pure Oil 6½s '33	103¼	103⅛	103⅛	— ¼
S O N Y 6½s '33	106	105¾	105¾	— ½
Sun Oil 5½s '39	99¼	98½	99¼	0
Tidal Osage 7s '34	103½	103½	103½	0
Trans. Cont. Oil 7s '30	94½	94	94	0
Valvoline 7s	104½	104½	104½	0

Standard Oil Stock Traded in New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended April 16 Sales	First	High	Low	Last	Ch'ge
26⅝	17¼	19¾	17	£ 4,000,000	£1	Anglo American	$2.4cS.A.	Jan. 4, 26	500	17½	17¾	17½	17½	— ⅜
4¼	1⅜	2¼	1⅜	(sh) 500,000	N.P.	Atlantic Lobos	.....	.....	100	1¾	1¾	1¾	1¾	0
12¾	8	4½	3½	$ 10,000,000	$10	do pfd	.....	.....	.....	.....	.....	.....	.....	.....
240	205	255	226	1,000,000	100	Borne Scrymser	‡$4S.A.	Apr. 15, 26	.....	.....	.....	.....	.....	.....
72	53¾	59½	53	10,000,000	50	Buckeye Pipe Line	$1Q	Mar. 15, 26	100	53½	53¾	53½	53¾	— ¼
74	48½	73¾	65	3,000,000	25	Chesebrough Mfg	75cQ	Mar. 31, 26	600	67	67	65	65	—2
115	110	.....	.....	1,000,000	100	do pfd	$1¾Q	Mar. 31, 26	.....	.....	.....	.....	.....	.....
31½	21⅜	25⅞	19½	34,914,280	10	Continental Oil	25cQ	Mar. 15, 26	26,500	20⅝	20¾	†19½	20	— ⅝
17½	10	16	13⅞	1,500,000	25	Crescent Pipe Line	.....	Sept. 15, 25	100	13⅞	13⅞	†13⅞	13⅞	— ⅜
156	132	137	120½	3,000,000	100	Cumberland Pipe Line	$5Q	Mar. 15, 26	120	121	121	†120½	120½	—1½
96	61	63¾	52½	5,000,000	100	Eureka Pipe Line	$1Q	Feb. 1, 26	5	x53½	x53½	†x53½	x53½	— ¾
68¾	23½	32½	19	16,000,000	100	Galena Signal Oil	.....	June 30, 25	1,500	22	22⅝	†19	21	—1
105	88	94½	78	4,000,000	100	do new pfd	$2Q	Mar. 31, 26	50	82	82	82	82	—3
114	95	97½	80⅜	2,000,000	100	do old pfd	$2Q	Mar. 31, 26	20	84¾	84¾	83	83	—1¾
95	42¼	99¼	52	43,750,000	25	Humble Oil & Refining	$0cQ	Apr. 1, 26	6,900	57½	57¾	54½	55½	—1¾
.....	.....	65½	53½	72,916,667	25	do new w.i.	.....	.....	1,600	56¾	56¾	55	56	—1½
.....	.....	27½	17½	.....	....	do rights	.....	.....	1,300	21¾	21¾	21⅛	21⅛	0
154½	127	144	134¼	20,000,000	100	Illinois Pipe Line	$6S.A.	Dec. 31, 25	130	143	143	140½	140½	—2
39¼	27¾	38¾	31½	(sh) 6,491,852	N.P.	Imperial of Canada (new)	25cQ	Mar. 1, 26	8,600	33½	33¾	32½	33¼	— ½
84	57⅜	70	58	$ 5,000,000	$50	Indiana Pipe Line	$1Q	Feb. 15, 26	450	x65	x65¾	x63¼	x63¼	—1¾
35¾	22⅛	35¼	28¾	(sh) 7,118,138	N.P.	International Petroleum	25c	Feb. 15, 26	16,200	31¼	31½	30¼	30⅝	— ⅜
25¾	16⅜	20⅜	16	$ 6,362,500	$12½	National Transit	25cS.A.	Dec. 15, 25	700	17	17	16	16	—1⅜
79	49¾	51½	39	5,000,000	100	New York Transit	$1Q	Apr. 15, 26	.....	.....	.....	.....	.....	.....
88	67½	80½	70¾	4,000,000	100	Northern Pipe Line	$3S.A.	Jan. 1, 26	50	73½	73½	73½	73½	0
75¼	60¼	67¾	59¾	60,000,000	25	Ohio Oil Co	50cQ	Mar. 31, 26	1,600	60½	60½	†59⅜	59¾	— ⅜
44½	19	23	15	10,000,000	25	Penn Mex Fuel	50c	May 21, 25	1,300	18	22½	18	20	+3
65½	45⅞	60¼	48	60,000,000	25	Prairie Oil & Gas	.....	July 31, 25	9,400	54	54	51	52	—1⅞
129¾	106	127½	122½	81,000,000	100	Prairie Pipe Line	$2Q	Apr. 30, 26	250	125	125	123¼	123¼	—1¾
254	200	212	191	4,000,000	100	Solar Refining Co	$5S.A.	Dec. 19, 25	100	202	202	196	198	—5
103	63	74¼	61½	10,000,000	100	Southern Pipe Line Co	$1Q	Mar. 1, 26	350	67	67	66¼	67	0
197	139	197	152	20,000,000	100	South Penn Oil Co	$1.50Q	Mar. 31, 26	120	152	158	†152	157	—2½
47½	45	50	39	20,000,000	25	do new	.....	.....	300	39	39	39	39	—1½
84	50	56	52½	3,500,000	100	South West Pa. Pipe Line	$1Q	Apr. 1, 26	.....	.....	.....	.....	.....	.....
.....	.....	58¾	51½	(sh) 12,602,434	N.P.	S. O. California (new)	.....	.....	5,600	54¼	54¼	52¼	52⅞	—1
70¾	59½	70½	61½	$ 223,756,258	$25	S. O. Indiana	62½cQ	Mar. 15, 26	18,700	62⅝	62⅞	†61½	61¾	—1
46	30¼	36½	25	8,000,000	25	S. O. Kansas	.....	June 16, 24	800	27¾	27¾	26⅜	26⅜	—1⅝
137	114¾	134⅜	108	16,864,434	25	S. O. Kentucky	$1Q	Mar. 1, 26	1,300	117	117	114¼	115½	— ½
270	231	267	206	3,000,000	100	S. O. Nebraska	$5S.A.	Dec. 19, 25	100	260	260	248	248	—13
48¾	40¾	47¼	30½	227,535,300	25	S. O. New York	35cQ	Mar. 15, 26	57,100	31½	31½	†30¼	30⅝	—1⅜
369	338	362	302½	14,000,000	100	S. O. Ohio	$2½Q	Apr. 1, 26	110	315	316	314	316	+1
128	116	119	117	7,000,000	100	do pfd	$1¾Q	Mar. 1, 26	.....	.....	.....	.....	.....	.....
27	12	23	15½	1,722,931	25	Swan-Finch Co	.....	Nov. 1, 19	300	18¼	18¼	18	18	—1
109½	80⅛	112	95¾	61,919,950	25	Vacuum Oil Co	50cQ	Mar. 20, 26	3,700	99	99	96½	97⅛	—2⅝

Borne Scrymser $2 extra April 15 $4 extra Oct. 15 $4 extra April 15 ‡Vacuum 50c extra Mar. 20, June 20, Sept. 19 Dec. 19 Dec. 19 special $1 Dec 19 S.O. Neb. $10 extra Dec. 1 special $1 Dec. 19 S. O. Neb. $10 extra Dec. 19 Ohio Oil 50c extra Dec. 31. Chesebrough 62½c extra Dec. 29. Buckeye P. L. 59c extra Mar. 15. National Transit 50 extra Mar. 15.

New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions week ended April 16 Sales	First	High	Low	Last	Ch'ge
11½	2½	14⅛	5	....	Amer. Maracaibo	3,800	6¾	6¾	5½	6⅜	— ⅝
8⅜	5	6¾	5⅞	$10	Arkansas Natural Gas	.....	.....	.....	.....	.....	.....
.....	.....	19¼	14⅝	N.P.	Beacon Oil	1,400	16	16⅜	15½	15½	— ½
47½	38	.....	.....	$25	British-American	.....	.....	.....	.....	.....	.....
10¼	2¾	22⅞	9¼	25c	Carib. Syndicate	11,900	12⅞	12⅞	11¼	11¾	— ⅝
43	35	42⅜	37½	$20	Cities Service	14,200	39⅝	41	39⅝	40½	+ ¾
85⅝	80¼	84	82¾	100	do preferred	2,100	82⅞	84	82⅞	83½	+ ½
8	7¾	7½	7⅜	10	do preferred B	300	7½	7½	7½	7½	0
21⅜	17½	20⅝	19	10	do bankers' sh	300	19⅞	20⅛	19⅞	20⅛	+ ⅛
2¾	.60	3½	2	N.P.	Colombia Syndicate	18,000	2 1/16	2 1/16	2⅛	2¼	0
15	8¼	15¼	10	N.P.	Creole Syndicate	1,500	11⅜	11⅜	10⅞	11	— ⅜
12¼	5	7⅜	1⅜	N.P.	Crown Central	1,400	2	2	2	2	— ¼
7	2	3¾	2	N.P.	Derby Oil & Refining	.....	.....	.....	.....	.....	.....
27	10½	14⅞	13½	N.P.	do preferred	.....	.....	.....	.....	.....	.....
6	1⅜	7	4	N.P.	Gibson Oil	9,500	4⅜	4½	4⅜	4¾	— ¼
3¾	1⅜	2	.65	N.P.	Gilliland v. t. c.	.....	.....	.....	.....	.....	.....
98¼	63½	93¾	82⅛	$25	Gulf Oil Corp	950	84½	84½	82⅛	82⅛	—1⅝
5⅞	2¼	4	2¼	N.P.	Kirby Petroleum	500	2½	2½	2⅜	2⅜	— ⅛
23¼	17⅞	25⅞	16⅝	N.P.	Lago Oil & Trans. A	38,800	17¾	17⅞	†16⅝	16⅞	— ⅛
11¾	4⅛	13	8½	N.P.	Lago Petroleum	7,300	9½	9½	† 8½	8⅞	— ⅛
13	6	12¼	5¾	N.P.	Leonard Oil & Dev	48,700	8	8	6¾	7⅛	— ⅛
25⅞	18	25¾	22½	N.P.	Lion Oil Refining	100	23	23	23	23	— ½
4¼	1¾	2¾	2⅜	N.P.	Marland of Mexico	600	2½	2½	† 2⅜	2⅜	— ⅛
5¾	.56	5½	3⅝	$10	Mexican-Panuco	4,500	4⅜	4½	4¼	4½	+ ⅛
2	1	1¾	1⅜	1	Mountain & Gulf	400	1¾	1¾	1⅝	1⅝	0
26¼	18⅜	26	23	10	Mountain Prod	6,000	23⅝	23⅝	†23	23¼	— ¼
6¾	3⅝	6¾	5⅞	5	New Bradford	1,200	6⅛	6⅛	5⅞	5⅞	— ¼
24¾	16¼	5	2	10	New England Fuel	.....	.....	.....	.....	.....	.....
19⅜	6¼	17	9½	1	New Mexico & Ariz	4,500	9½	10¾	† 9½	9½	—2
12½	8¼	17	8	25	New York Oil	1,500	13	13	11	12½	+1⅝
37	14	36	34¼	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
2½	.90	2¾	.70	N.P.	Peer Oil Corp	9,900	.98	.98	†.70	.75	—.13
28¼	16	22¾	18½	$10	Pennok Oil	1,400	19½	20	19⅛	19⅜	— ⅜
44½	16	26⅜	14⅜	25	Red Bank Oil	2,600	21⅛	*26⅜	21⅛	25¾	+5
33½	19	24⅞	14½	N.P.	Reiter-Foster	1,500	19½	20½	19½	19½	+ ¼
9½	3½	7¼	5	N.P.	Ryan Consolidated	1,200	5¼	5¼	† 5	5	— ½
9¾	6⅛	10	8	$10	Salt Creek Cons	500	8¼	8¼	† 8	8	0
35	24	36	29	10	Salt Creek Prod	2,800	30½	x30½	x29	x29½	—1
3⅞	1	2¾	1⅝	5	Savoy Oil	.....	.....	.....	.....	.....	.....
13¾	9	10	7⅝	10	Tidal Osage	200	7⅝	7⅝	† 7⅝	7⅝	—1⅛
10⅞	8	10	8½	10	do non-voting	.....	.....	.....	.....	.....	.....
.....	.....	27	21	N.P.	Tide Water Associated	15,400	23	23⅛	†21	21½	—1⅝
.....	.....	99¼	97½	100	Tide Water Associated preferred	4,200	97½	97⅝	97½	97½	0
4⅞	1¾	8	4½	5	Venezuelan Pet	23,500	6¾	6¾	6⅜	6⅜	— ⅜
.....	.....	29⅜	23½	....	Warner-Quinlan w. i.	1,500	25½	25⅞	25	25	— ⅜
31¼	22⅜	27¼	22	N.P.	Wilcox Oil & Gas new	2,400	26	x*27¼	x25½	x25½	— ¼
7	3⅞	6⅜	5¼	N.P.	Woodley Petroleum	.....	.....	.....	.....	.....	.....

*New High †New Low xEx-dividend

Financial Notes

Middle States Oil Corp.—Stockholders' Protective Committee reports that ancillary receivers of four subsidiaries in Texas have been discharged, and claims of $317,026 against nine subsidiaries have been settled for $110,419. There has also been recovered $63,000 of $86,850 impounded by pipe lines at the time of the receivership. Nine subsidiaries on Dec. 31 had $245,000 cash on hand after spending $403,000 for operations, compared with less than $3,000 at beginning of receivership.

Standard Oil Co. of Nebraska—At special meeting April 12 stockholders approved splitting stock into shares of $25 par value each. Company recently declared 50% stock dividend and holders will receive six shares of new stock for one of old. Under new structure 180,744 shares of $25 stock will be outstanding compared with 30,124 of $100 stock under old capitalization. The dividend is payable May 6 to stock of April 6 record.

Sinclair Consolidated Oil Corp.—Sells remainder of Mexican Seaboard Oil Co. 7% debentures it held. Sinclair originally held $10,700,000 of these debentures but the amount was reduced by retirement to $3,500,000. Subsequently small amounts of the remainder were sold and within the last two weeks the final holdings were disposed of to an individual.

Shaffer Oil & Refining Co.—Dividends on preferred stock to be resumed in second quarter, 1¾ per cent to be paid July 25 to holders of June 30 record. Last payment on preferred stock was in third quarter of 1923.

Continental Oil Co.—All officers and directors re-elected.

Associated Oil Co.—All directors and officers re-elected.

Oil Dividends

	Amt.	Payable	Stock of Record
Amerada q	40c	Apr. 30	Apr. 22
Louisiana Oil pfd. q	$1.62½	May 15	May 1
Sinclair Cons. pfd. q	$2	May 15	May 1
Skelly Oil q	50c	June 15	May 14
Union of Calif. q	50c	May 10	Apr. 17
Washington Oil q	$2	Apr. 20	Apr. 15

Cleveland Stock Market

	Par	April 16 Bid	Asked	Last Sale
Canfield Oil Co	$100	.....	107	107
do pfd	100	.....	100	100
Fred G. Clark Co	10	3¼	4¼	3¼
National Refining Co	25	39	40	39
do pfd	100	127	135	129½
Paragon Refining Co	25	7¼	7½	7¼
do pfd	100	.....	68	67

x—Ex dividend.

THE OIL INDUSTRY EXCHANGE

Positions Wanted

Specialist in all grades Greases, Soluble Oils, Castors, Non-Chatter Bases, Soaps and General Compounding, desires new connection. Box 529.

Have Several Years General Oil Experience and want position with opportunity. Prefer sales department, Ohio or New York but will go anywhere immediately. Married, References. Box 583.

Expand Your Lube Business. Do you want a live salesmanager with broad experience in wholesale and retail marketing, a man who can really increase your sales? Would consider salary and commission based on actual results. Address Box 577.

Married Man 30 Years Old With 12 Years Petroleum Marketing, Jobbing and Refining Experience desires new connection. Can furnish good references as to sales, executive and refining knowledge. Prefer proving worth before definite salary basis is arranged. Will go to foreign countries if necessary. For further communication address, Box 575.

Experienced oil salesman with wide acquaintance in Mid Continent field, also thoro knowledge of refining and producing end of business desires connection as refinery salesman, specialty salesman calling on oil industry or as marketing company buyer. Might consider small producing company with chance to grow with business. Splendid references. Box 578

Situations Open

Thoroughly Experienced Grease Salesman Wanted

familiar with sale and application of Cup, Fibre and Yarn, and high-grade lubricating greases, Gear Compounds and specialties to industrial manufacturers in Central West. Old reliable firm. State age, experience and salary expected. Box 579

Wanted to secure services of a man who is familiar with retail end of a tank station. One who understands routes and general management of same. Location, Connecticut. Box 567.

Salesmen Wanted

Salesmen handling line of service station equipment or calling on oil trade to sell nationally advertised line of visible gasoline pumps—exclusive territory—liberal commissions. Following states still open. Wisconsin, Nebraska, Kansas, Oklahoma, Colorado, Montana and Texas.
Box 576
Care National Petroleum News

Miscellaneous

WHAT IT COSTS

For "Position Wanted" advertisements—5 cents per word. Minimum cost $1.00. All other classified advertising—10 cents per word. Minimum cost $3.00. Advertisements set in special type or with border—$4.00 per column inch. Copy must reach us not later than Friday preceding date of issue.

All advertisements carried on this page are payable in advance.

Equipment Wanted

One Used Saybolt Universal Viscosimeter Wanted in good condition. Box 581.

For Sale

BULK PLANT FOR SALE

in Central New York combined filling station and plant with good railroad facilities located on one of the main streets of city. Fifty five thousand gallon storage. For further information write

Box 582
Care National Petroleum News

Small Jobbing Business For Sale. Bulk station 30,000 gallons capacity with one service station in operation and location and equipment for second station. Priced to sell, account sickness. G. H. Manahan, Goshen, Ind.

Bulk Storage Plant For Sale

Bulk Storage plant fully equipped and three service stations including differential contract for 1926. Located near Camden, New Jersey, opposite Philadelphia. No Tax.

Camden Bridge to be completed July 4th, will open field of 4 million people. Address

Box 580

Used Equipment—Sell It!

National Petroleum News will bring you into contact with buyers. Why not look over the equipment of your company, jot down what you have no use for and send in a classified advertisement.

Or, if you want to buy used equipment write us telling what you desire.

The Oil Industry Exchange is read by over 12,500 individuals each week. Many of these have what you want to buy or are looking for the equipment you wish to sell.

Advertisers having box numbers should be addressed in care of National Petroleum News, 817 Huron road, Cleveland, Ohio, unless otherwise specified.

ADVERTISERS INDEX

National Petroleum News

Adamson Mfg. Co.
Allison Coupon Co. 104
Aluminum Company of America
American Can Co.
American Oil Corp. 66
American Oil Pump & Tank Co. 85
American Radiator Co.
American Schaeffer & Budenberg Corp.
American Spiral Pipe Works
American Steel Package Co.
American Telephone and Telegraph Co.
Aqua Oil Service, Inc.
Armstrong Cork & Insulation Co.
Associated Business Papers.
Associated Supply Co. 106
Attwood Brass Works, Inc.
Autocar Co.
Automobile Rotary Lift Co.

Barber Co., W. H.
Barnickel & Co., Wm. S. 74
Barnsdall Refg. Co. 14
Battenfeld Grease & Oil Co.
Bennett Pumps Corp.
Berry's Sons Co., James B.
Bessemer Gas Engine Co. 55
Bethlehem Shipbuilding Corp. 53
Bethlehem Steel Co.
Blackmer Pump Co. 103
Blaw-Knox Co.
Bolene Refg. Co.
Bowser & Co., Inc., S. F. 2
Brecht Co., The
Brookins Mfg. Co.
Brown Petroleum Co., R. J. 109
Brown Sheet Iron & Steel Co. 106
Brunner Mfg. Co.
Buckeye Iron & Brass Works. 6
Budd Wheel Co. 5
Buffalo Meter Co.
Butler Mfg. Co.
Byproducts Laboratories.

Cameron, A. S. Steam Pump Works. 63
(Ingersoll-Rand Company)
Canfield Oil Co., Cleveland
Carbide & Carbon Chemicals Corp.
Caward Dart Co.
Central Commercial Co. 114
Champion Pneumatic Mach. Co. 97
Champion Tank & Mfg. Co.
Champlin Refining Co. 18
Chapman Valve Mfg. Co.
Chestnut & Smith Corp.
Chicago Bridge & Iron Works.
Chicago Tubing & Braiding Co.
Cincinnati Advertising Products Co. 72
Cincinnati Ball Crank Co.
Clark Co., Fred G.
Classified Advertising Section. 127
Cleveland Brass Mfg. Co.
Cleveland Steel Barrel Co.
Columbia Oil Co.
Columbian Steel Tank Co.
Continental Motors Corp.
Continental Ref. Co.
Continental Supply Co. 77
Cook Paint & Varnish Co.
Correct Measure Co. 82
Cosma Laboratories.
Crane Co.
Crown Central Petroleum Corp. Outside Back Cover
Curtis Pneumatic Machinery Co.

Damascus Manufacturing Corp.
Davis Welding & Mfg. Co. Inside Back Cover
Dayton Pump & Mfg. Co.
Deepwater Oil Refineries.
Dempster Mill Mfg. Co.
Des Moines Foundry & Machine Co.
Draper Mfg. Co.
Du Pont de Nemours & Co. E. I.

Economy Engineering Co.
Edwards Mfg. Co.
Edward Valve & Mfg. Co. 68
Emerson-Scheuring Tank Co.
Empire Oil Works, Inc.
Empire Refineries, Inc. 91
Erickson Co., Inc. C. E.
Erie Service Station Equipment Co.

Fairbanks, Morse Co.
Farrel Mfg. Co. 1
Fiske Bros. Refg. Co.
Fleckenstein Visible Gasometer Co. of Michigan
Flexlume Corp.
Foamite-Childs Corp.
Ford Motor Co.
Forney Fibre Co.
Freedom Oil Works.
Frontier Mfg. Co.
Fuller & Sons Mfg. Co.

Galena Signal Oil Co.
General American Tank Car Corp.
General Motors Truck Co.
Gilbert & Barker Mfg. Co. 17
Globe Mfg. Co.
Globe Oil & Refg. Co.
Gomory, W. L.
Goodrich Rubber Co., B. F.
Graham Brothers.
Graver Corp.
Groetken Pump Co.
Guarantee Liquid Measure Co. 8-9
Gulf Ref. Co. 86

Handy Oiler Co.
Hayes Equipment Mfg. Co. 10
Heil Co., The
Highland Body Mfg. Co.
Hope Engineering & Supply Co. 65
Hughes Tool Co. 78
Humble Oil & Refining Co.
Huntley & Huntley
Hyde-Schneider Haley Mfg. Co.

Illinois Glass Co. 99
Imperial Oil Marketing Co.
Independent Oil Men of America
Indian Refg. Co.
India Tire & Rubber Co.
Ingersoll-Rand Co. 63
(A. S. Cameron Steam Pump Works)
International Harvester Co.
Irving Iron Works Co. 69

Jenkins Bros.
Johns-Manville Co., H. W.

Kanotex Ref. Co.
Keen & Woolf Oil Co. 88
Kellogg Co., M. W.
Kellogg Mfg. Co.
Kelly-Springfield Truck & Bus Corp.
Keystone Oil & Mfg. Co. 114
Klean Rite Auto Laundry Co.

Larkin Automotive Parts Co.
Leader Iron Works.
Lewis-Shepard Co.
Linde Air Products Co.
Lipman Pump Works.
Lowden Co., Jos. H.
Lucas Pump & Tool Co.
Luce Trunk Co. 111
Lucey Mfg. Co.
Ludlow Valve Mfg. Co. 52

Marland Refg. Co. 4
Mars Co. 103
Marvel Equipment Co. 8-9
Mathieson Alkali Works Inc.
McDonald Mfg. Co., A. Y.
McKee Co., Arthur G.
McSavaney Co.
Merit Oil Equipment Co.
Metal Hose & Tubing Co. 11
Metal Shelter Co.
Metric Metal Works.
Miller & Co., Inc. Max B.
Miller Petroleum Co.
Miller Sons Co., A. D.
Milwaukee Tank Works. 89-Inside Front Cover
Mohawk Rubber Co.
Moore & Kling, Inc. 94
Morrison Bros.
Murdock Mfg. Co. 109

National Carbon Co., Inc.
National Petroleum Marketers Assn.
National Petroleum News. 12-93-106-110
National Recording Pump Co.
National Refining Co. 111
National Transit Pump & Machine Co. 52
Neil & Co. Wm.

Ohio Valley Refg. Co.
Oil Conservation Engineering Co. 44
Oil Well Supply Co.
Oxweld Acetylene Co. 57

Page Steel & Wire Co. 53
Palm, Fechteler & Co.
Pennsylvania Refg. Co.
Pennzoil Co.
Perfection Mfg. Co. 69
Petroleum Iron Works Co. 16
Pforzheimer & Co., Carl H.
Platt Co., W. C. 118
Power Specialty Co. 73
Pressed Steel Tank Co.
Prest-O-Lite Co.
Professional Card Section.
Pulte-Korreck Machine Co.
Pure Oil Co. 94
Pyrene Mfg. Co.

Quaker City Iron Works. 7
Quincy Compressor Co. 23

Ranney Oil Mining Co.
Rand, McNally & Co.
Raymond Garage Equipment Co.
Reading Steel Castings Co., Inc.
Reis Co., The Theo.
Rhodes Co., Jay B.
Roper Corp., Geo. D. 72
Roxana Petroleum Corp. 3
Royer Pump & Equipment Co. 90

St. Louis Can Co. 15
St. Louis Steel Package Co.
St. Louis Surfacer & Paint Co. 24
Sharples Specialty Co.
Shepard Corp., Arthur B. 86
Sherwin-Williams Co. 19
Shotwell Pump & Tank Co.
Sinclair Refining Co. 112
Sistersville Tank & Boiler Works.
Skelly Oil Co.
Smith Corp. A. O.
Spencer Petroleum Co. 108
Standard Boiler & Plate Iron Co.
Steinke Bros. Mfg. Co.
Sterling Oil Co.
Stevens Grease & Oil Co., A. J.
Sun Oil Company.

Tagliabue Mfg. Co., C. J.
Texas Company, The. 22
Texhoma Oil & Refg. Co.
Tide Water, Oil Co.
Tokheim Oil Tank & Pump Co. 20
Transcontinenta. Oil Co.
Trimont Mfg. Co.
Truscon Steel Co.

Union Metal Mfg. Co.
United Filters Corp. 60
U. S. Air Compressor Co.
United States Cast Iron Pipe & Foundry Co.
Universal Oil Products Co. 50-51

Van Tine, C. C.
Viking Pump Co. 90
Vilter Mfg. Co.
Visible Pump Co.
Vogt Machine Co., Henry. 21

Wackman Welded Ware Co.
Waverly Oil Works.
Wayne Tank & Pump Co.
Western Mfg. Co.
Wheaton Brass Works, A. W. 39
Wheeling Steel Corp. 48
White Co. 47
White Engineering Corp., J. G.
Wichita Pump & Equip. Co. 105
Williams Sealing Corp.
Wilson Welder & Metals Co., Inc.

Youngstown Boiler & Tank Co. 13
Youngstown Welding Co. 101